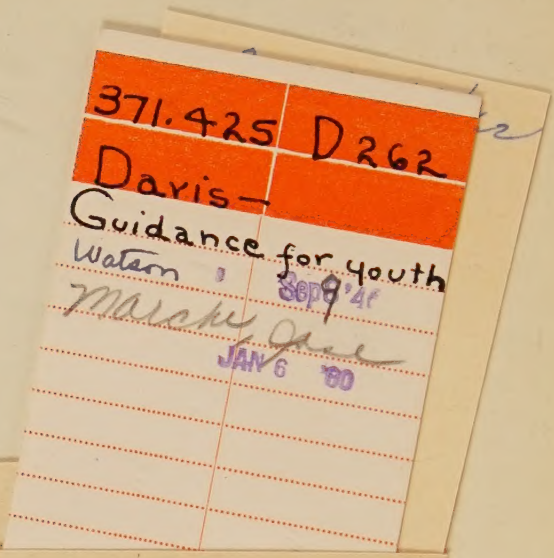
GUIDANCE FOR YOUTH



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TOMORROW'S MEN AND WOMEN OF AFFAIRS

Guidance *for* Youth

NEW EDITION

A TEXTBOOK BY

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AND

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PREFACE

We believe that the large number of pupils who drop out of school as soon as the law allows do so not for financial reasons but because they do not appreciate the value of education and are therefore indifferent to it. While it is our opinion that many young people who go to college would be better off in vocational school or industry, we are as strongly convinced that far too few finish high school. Part I of this new edition of Guidance for Youth provides a clear exposition of the need for education and some means by which it may be obtained.

Part II supplies information on some thirty different basic occupations and provides motivation to the pupil for becoming vocationally intelligent. No attempt has been made to give information on every occupation or to furnish an exhaustive study of any one. It would be well-nigh impossible to do this within the scope of a single textbook. The occupations are so presented as to arouse interest and stimulate the desire to find out more about them. The book is intended to serve as a bait and yet withal a good rich bait. If young people are stimulated to acquire definite vocational information and to realize the need for self-knowledge, the task of the counselor will be a far simpler one.

Part III presents important considerations that should receive attention by a young person desiring to select his life work. These aim to induce the pupil to think seriously about how he can best adjust himself to the changing social and economic situation. Pertinent sug-

gestions for finding a job and for providing desirable leisure-time activities, as well as important items in character development, presented in an interesting manner, make this section of the book effective.

In too many cases the traditional curriculum provides no challenge to the pupil. He is too realistic in his thinking to be willing to accept values chosen for him by adults who have had the experiences they are now offering him. A course of study set up on the basis of such a text as this, with its pertinent facts and examples taken from real life, can definitely help to make his high-school curriculum a vital experience.

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The various chapters have been subjected to trial by a number of teachers, and their valued suggestions have been used. To these coworkers, to the many authors and publishers whose writings have been helpful in the preparation of the book, to those publishers who have kindly permitted us to quote from copyrighted materials, to Dr. John M. Brewer for his courteous interest, we extend our thanks with the hope that this new edition may fill as vital a place in the education of youth as did its predecessor.

F. G. D.
B. C. D.

TO TEACHERS

The organization of the various chapters of this book is designedly informal. In the discussion of the different occupations an effort has been made to avoid monotony by varying the order and manner of presenting the important aspects considered in each case.

To give unity of organization to the text a definite outline has been followed. However, no present-day teacher will feel that this order must be adhered to in using the book. For instance, a subject of particular interest to boys might be followed by one of special interest to girls. The teacher will, without doubt, be alert to the interests of the community and, where possible, will let them and the interests of her pupils determine the order in which the various chapters will be studied.

The aim throughout is to arouse the pupil's interest and to engage his individual thinking. For this reason a departure has been made from the usual grouping of segregated questions and exercises at the end of each chapter, and thought-provoking projects are incorporated in the reading matter itself. In this way the problem is brought to the pupil's mind in direct connection with the thought discussed. Furthermore, embodied in the text, it is less likely to be ignored. In this connection the teacher plays a vital part. *Unless the pupil is made to understand that these questions and problems are an essential part of the text and that he must systematically solve each problem and seek an answer to each question selected,* the book will necessarily lose much of its value.

Since it is impossible to include within the covers of one book all vocations of importance, the teacher might assign to each pupil one or more occupations in which he may be interested, on which he is to collect material and at a specified time make a report to the class. In this way pupil activity will be accomplished and a wider area in the field of occupations will be covered. An outline for such a study is given in the text (p. 376). In addition to the special lists of references at the ends of the various chapters, general references on occupations and other phases of guidance will be found at the end of the book (p. 379).

The course will naturally be more than a textbook course. The daily newspapers, current magazines, and various other publications are producing an increasing amount of material on occupations and general guidance problems. If, as suggested above, the pupil is made responsible for the collection of information about one or more occupations, a wealth of material in the form of pamphlets, clippings, experience and interview reports, pictures, etc., should be brought into the class and kept on file.

FOREWORD

Every pupil in this school belongs to one of these five groups:

Group I: Those of you who have no thought other than that of finishing high school and going on through college.

Group II: Those of you who plan to finish high school and then go to work.

Group III: Those of you who are quite undecided about staying in school after you finish high school or the ninth grade.

Group IV: Those of you who have not thought anything about it. If a pretty good job turns up you will take it; if not, you may just go on to school.

Group V: Those of you who have definitely decided to stop as soon as you finish the year or as soon as your state-school law allows it.

In whatever group you mentally place yourself, this book contains valuable information for you. If you are in Group III or Group IV it may show you such definite values in a high-school course that you will decide to go on through high school. If you are in Group II or Group V it may help you to understand the things necessary to success, and to avoid some pitfalls in securing a job. In whatever group you know yourself to be, it will make you *vocationally intelligent* and furnish you further information valuable to those of your age. You will find yourself wiser, and therefore your life will be richer for knowing the important things about a number of occupations.

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GUIDANCE FOR YOUTH

PART ONE. EDUCATIONAL GUIDANCE

CHAPTER I

WHAT IS IT ALL ABOUT?

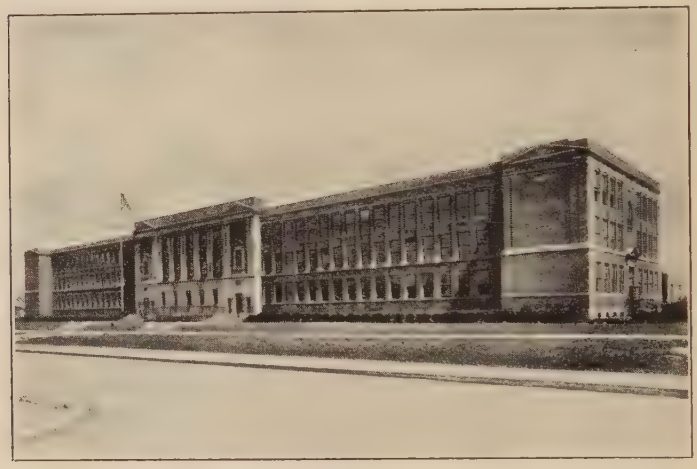
John M. Gundy is the proprietor of a small grocery store in Sudbury, Massachusetts. He is fifty-six years old, and at the rate at which he is now paying for his house and store it will take him nine years to be clear of debt. The school tax on his property amounts to $52.34 per year. Since he has no children, is there any good reason why, in addition to all his other taxes, he should have to pay a school tax?

Mrs. Malcolm Jones is a widow living in Milton, Pennsylvania. Her four children have grown up and have homes of their own in the same town. She and her husband paid a school tax for forty-six years. Each of her children is paying a school tax now. Should she have to continue to pay a school tax out of her small income?

Is the United States making a mistake? Every year the United States spends over $2,000,000,000 in building, equipping, and maintaining its schools. In Detroit one third of all the tax money collected goes to maintenance of schools. The school budget of New York City is about $145,000,000. Is the country making a mistake in giving this education entirely free to boys and girls in view of the fact that it results in laying heavy taxes on persons who own property? Remember, a great many of these property-owners have no children of their own. Give reasons for your answer.

Not only are property-owners taxed to support public schools, but boys and girls are required to attend these

schools. For nine months out of every twelve most of you are required by your state law to attend school. In most of the forty-eight states of the country every child must attend school until he is sixteen years of age. Rapidly that age limit is being raised to seventeen years. It would be interesting to guess how long it will be before



A MODERN HIGH SCHOOL

Where more than three thousand junior and senior high-school pupils attend school. (Courtesy of the John Adams High School, Cleveland, Ohio)

the age is eighteen. The Michigan state law requires pupils who have not finished the tenth grade of the public schools or its equivalent to attend school eight hours a week until they are seventeen years old. Most of the remaining states have laws with about the same provisions. Why?

Let us think about these two groups of countries:

Group I		Group II	
China	Arabia	United States	France
India	Persia	England	Germany

All the countries in the second group have developed splendid school systems and every year are emphasizing more and more the importance of education for their girls and boys. Can it be that this has a direct bearing on the prosperity and progressiveness of these countries? Write two of the best reasons you can think of for believing it has.

A KAZOO BAND

Getting acquainted with a new band of music in a public school

The chief purpose. You see your school is a good deal more than a building where you learn to do problems in arithmetic, name the capital of Arizona, or master the correct use of quotation marks. Even back in the kindergarten, where all your work was delightful play, such as building houses of blocks, stringing gayly colored beads, or making small baskets, you were taught important things. You learned neatness and orderliness by having to put back in its proper place the thing you had been playing with before you began another game;

you learned alertness and acquired skill in using your fingers by "cutting out" and by doing crayon work. You learned, too, that there were other small people in the world equally entitled to all these interesting playthings. These lessons were desirable and important and helped to do the thing for which the school exists: to

BAKER BOYS

Indian boys learning the business of baking in a government school. (Courtesy of the United States Department of Indian Affairs)

make you a valuable citizen. Property-owners are taxed, over $2,000,000,000 is spent, and about 900,000 intelligent, trained men and women are employed in the public schools of the United States each year in order that its boys and girls may become desirable and useful citizens. What does that mean? When you have answered that question you will be able to explain why the United States and England and France and Germany consider every dollar put into their schools a splendid investment.

Lincoln you would class as a good citizen, and Theodore Roosevelt and Jane Addams and Woodrow Wilson and Charles E. Hughes. Make a list of ten men and women who you think belong to this class. Now name five pupils in your school who you think will make good citizens. What qualities does each possess which entitle him to a place on your list? Think your answer out definitely.

YOUTHFUL COOKS

Girls learning the fine art of preparing nutritious, wholesome food. (Courtesy of the Public School Practical Arts Department, East Orange, N. J.)

Can you imagine anyone in the lists you have made disloyal to his school, his city, or his country? One pupil has written this definition: "School loyalty is an inner voice in the heart of girl and boy telling each to go out and conquer the enemies of his school."

Who are your school enemies? Those schools whose teams oppose yours? Those who won last year's debate or outdistanced you in track? No; there are enemies nearer home, creeping, insidious enemies, far more to be dreaded than those friendly school rivals. Suppose a boy

sneaks a dish of ice cream in the cafeteria and doesn't pay for it, or suppose he takes his neighbor's new skates; suppose a girl cheats in an examination or persists in causing disorder in the halls and classroom. Such acts are really damaging to a school's character; they are the enemies that school loyalty is out to conquer.

How can a boy or girl who has been guilty of such acts be changed into a loyal friend of his school? Bring to class the best suggestion you can make. It will be interesting to select the three wisest suggestions from all those brought by the class.

Is it worth the money? A bank president once explained his unusual courtesy to a small boy visitor by saying thoughtfully: "Well, my attitude toward that young chap is not entirely an unselfish one. That boy may some day be governor of this state." Is it worth while to train that possible future governor to be a desirable citizen? If all the boys and girls catch this spirit of loyalty and uprightness and emerge from our schools unalterably honest, with trained, alert minds, what sort of country will ours be? Is it worth while to Cleveland, Ohio, to spend twenty million dollars each year that her girls and boys may grow up with such ideals?

Find out how much your city or district spends yearly on each child attending school; how much your city or district has invested in school building and equipment.

Be prepared to discuss convincingly for two minutes either side of the following question: Should a man who has no children or whose children have all grown up continue to pay throughout his life the same school taxes?

Bring to class a list of qualities necessary in a good citizen.

CHAPTER II

MORE LESSONS OR A JOB THAT PAYS REAL MONEY?

In our last lesson we talked about the really big purpose of our public schools: the vast job of taking the millions of boys and girls all over our country and teaching them to be loyal, upright citizens. Now let us suppose that you feel you already possess the more important characteristics of a good citizen, and that you have a chance to secure a regular job. Suppose a friend of yours working for the same company tells you of an opening. It sounds to you like a pretty good thing. Besides, it will be a new experience. No more studying or handing in papers. It will mean a regular weekly salary so that you can be more independent.

Suppose your friend says: "Say, Joe, would you like a good job? I know of a dandy. It's down in Spacer's glass factory. Most of the fellows start in at $9 a week; but the foreman told me if I brought in a wide-awake fellow he could depend on, he'd start him at $11. What do you know about that? Some job, too. Nothing to do but sort different kinds of glass. You can do it with one hand. A bunch of fellows I know would jump at the chance; so if you want it, you had better step lively and snap it up."

Let us see if it might not pay you better, from the financial side alone, to stay in school for a while. First, you must do some thinking. It is easier, as everyone knows, to let other people think for you; but in this case

you had better do your own thinking. Your decision means more to you than it does to anybody else. Let us put the facts up in front and look at them.

A blind-alley job. Do you suppose it is going to be very interesting sorting glass for eight hours every day, five and a half days a week? Try to imagine it: sorting glass day after day; no chance to use your brain; just sorting glass! Where will it lead you? It is one of those blind-alley jobs. It leads nowhere. You say you can change your job if this one gets too tiresome? Without any training or a high-school education, what kind of job are you going to get? You have nothing special to offer. In these days, when business life is strenuous and competition severe, you must know how to do some one thing well in order to get anywhere.

AN OCCUPATION WITH NO FUTURE

Where shall you be twelve years from now? What are your friends doing who left school at the end of the eighth grade to go to work? If you take such a job as that of sorting glass, you will find when you get older that you still remain untrained for the skilled work which offers a future.

Because they do not know! The White-Williams Foundation in making a survey in Philadelphia of the

thousands of child workers below seventeen years of age found that *nine tenths* of them would have to obtain further education or training before they could get a better job. The report states further that an increasing number of employers are demanding a high-school education or at least some high-school training. And yet, chiefly because they do not know these facts, only a small percentage of those entering first grade ever reach high school and but few of these graduate from college. The large number withdrawing before they reach high school do so not from lack of money but because they do not know what it means to stop. In one year forty-six thousand girls and boys dropped out of school in New York City because they did not realize what it was all about. Nor did they realize what it meant to get just "a job" — in the vast majority of cases a blind-alley job.

Find out for yourself. Let the class divide itself into a number of groups. Then let each group take the questions listed below and interview one of the following: any person who has finished high school and has been working at least two years, a doctor, a merchant, a banker, a dentist, a newspaper man, a garage-owner, a nurse (add persons from other occupations if you like).

1. Were you able to get a better job because of a high-school education?
2. Can you earn more money? advance in promotion more rapidly?
3. Have you more and better friends because of it?
4. Are you better able to meet people socially?
5. Do you get more pleasure out of life because of what you learned in high school?
6. Are you able to do more good than you otherwise could?

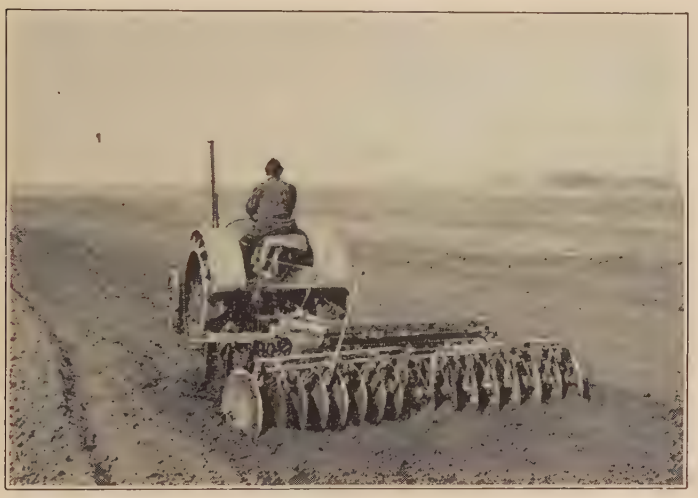
Some interesting figures. A table prepared by the United States Bureau of Education compares the wages of a group of children who left school at the age of fourteen with those who went on through high school and left at the age of eighteen. According to these statistics, at twenty-five years of age the average boy who remained

FARMER LOADING CHERRIES FOR MARKET

Motor cars and good roads enable the farmer to get his produce to market in a short time. (Courtesy of the United States Department of Agriculture)

in school until he was eighteen had received a total of $2000 *more* salary and was then receiving $900 a year more than the average boy who had left at fourteen. This difference is equivalent to an investment of $18,000 at 5 per cent interest. Is it worth while to stay in school four more years? It has been estimated that for every day spent in high school the student will later receive $9 more than the grammar-school graduate.

Here is something further to think about. The boy or girl who goes to work at fourteen reaches his maximum earning capacity at the age of thirty. The average maximum salary at that age is $1200. Since his labor is manual and dependent upon physical strength, at fifty he has a very difficult time finding a job or, with younger



TRACTOR REPLACES HORSES

An up-to-date farmer using a tractor to pull an eight-foot double disk harrow. This outfit will cover twenty to twenty-five acres in a ten-hour day. (Courtesy of the International Harvesting Co.)

men at his elbow, of keeping the one he has. The United States census reports show that sixty out of every hundred men are dependent on others for their support at the age of sixty. Dean Lord of the Boston University College of Business Administration, after a careful study of the earnings of college graduates, makes the arresting statement that the cash value of a college education is $72,000. He places the value of a high-school education at $24,000. His report places the average maximum in-

come of the untrained man at $1700, that of the high-school graduate at $2800, and that of the college graduate at $6000. He estimates that while the untrained man at the age of fifty begins to drop toward dependence, the college man reaches his maximum earning capacity at the age of sixty. Think this over carefully.

A FARM HOME

Cornell University has discovered that farmers with a high-school education become owners of homes four years younger than those who leave school at the end of the eighth grade. (Courtesy of the United States Department of Agriculture)

Some thoughtful critics are questioning these figures. They say there is nothing to prove that in all cases education was the cause of success.

Are there any exceptions? Are there occupations where education beyond the eighth grade is not necessary for success? Could education help the ashman? the ditch-digger? the street-car conductor? How? Remember we are talking about education beyond the eighth grade. What about the farmer? It may seem that here is one occupation where any further education is unnecessary.

At the end of the eighth grade a boy or girl can surely figure and can read and write fairly well. What more can he need on a farm? Yet investigations made in such farming states as Georgia, Illinois, Indiana, Wisconsin, Ohio, Washington, and Maryland all show that education for workers in this field emphatically pays. Kansas Agricultural College made an investigation of twelve thousand and thirty-seven farms. A record of the educational experience of the proprietor was made, revealing the following:

School Training	Average Earning Capacity
Common school	$422
High school	554
Partial college course	851
College	1428

Cornell University has discovered that farmers with a high-school education become tenants two years younger and owners four years younger than those who leave school at the end of the eighth grade.

The University of Wisconsin has prepared the following table after wide investigation of living conditions among school graduates:

Schooling	Percentage with Bath	Percentage with Electric Lighting	Percentage with Furnace	Percentage with Automobile
Common school	22	17	22	20
Short agricultural course	24	22	30	24
High school	27	21	30	25
College	49	44	41	29

You can probably earn a fair wage now; but you can see from the foregoing examples that it usually pays to spend some time getting ready to earn. Read the next paragraph for some examples of preparation.

Three ways to plant trees. The government once sent out three valuable fruit trees to each of three different farmers. One man without delay took his out into the orchard and planted them. Owing to an unusually dry summer all the trees died. The second farmer selected a favorable spot for his trees, fertilized them with some manure he had, and saw that they were watered at intervals. He raised two fairly good trees, but the third was stunted: a too liberal use of the fertilizer caused worms to get into the roots. The third farmer learned some things before he planted his trees permanently. He placed the trees in the ground temporarily. Then he sent samples of the soil of his farm to the state agricultural college for analysis, and so was able to get the proper fertilizer. When he planted his trees he dug out a large space so that each individual root would have plenty of room to spread in the direction in which it had started. He sprayed his trees systematically, refused to allow them to bear for four years, and today he is famous for his apple orchard of sturdy trees. A large majority of the trees in his big orchard have been grafted from the three government trees, and now bear similar fruit.

Did it pay the farmer to take the extra time and thought and to spend some money on the proper kind of fertilizer and spraying fluid? The man who said that to become a good painter one must mix paint with brains, hit upon an underlying principle in any occupation that is worth while.

Getting ready. If you were planning to make an extended motor trip across the country, would it pay to spend some time getting ready, overhauling your car completely, seeing that every smallest part was in perfect working order, planning your equipment carefully, writing ahead to get definite information on the different

routes? Would not your trip be all the more enjoyable if you knew the history of the different parts of the country through which you expected to drive?

Each one of you has more than merely a good car and several weeks of vacation to invest. You have the task of investing the most valuable thing in the world: a life with all its wonderful possibilities. Do you not think it will be wise to spend some time and much serious thought on how and where you can most wisely invest it? You will gain a great deal in four more years of school. Why not stay for them?

WOMEN WHO WAIT IN LINE[1]

At shop and factory they are there every workday morning, waiting patiently for the doors to open, standing in line waiting for the chance to work. Every line of transit brings them from all directions. They are of all ages, all types, all nationalities, native and alien, young, middle-aged, and old.

They are the women who are classed as "unskilled," and who turn to the want columns of the daily papers to find the work they think they can do — pasting boxes, assembling small articles, picking over dates and figs, dressing dolls, and dozens of other things listed in the industrial world's needs. Whatever it be, the work is monotonous, the hours are long, and the wages are small. "Twelve dollars to start" the advertisement perhaps reads; sometimes a dollar more or less. But the starting wage is usually a permanent one, for there are always fresh workers in line, eager and willing to "start at twelve."

The advertisement may call for two or three women, but there are sure to be from fifty to a hundred waiting when the doors open. The line has formed on the order of "first come, first served." When the manager appears there is a rush forward, for these women must work, and the age-old desire to survive overcomes any little considerations of politeness or even of fairness. A few questions are put to those in the van. A nod to go inside. To those remaining: "That's all needed today."

[1] From the *New York Times*.

The long line melts quickly. Where do they go, these women who wait? Some to apply at other places, though it is usually too late in the day now for a second try; some to homes — the lucky ones; many to furnished rooms, where they will wait until the next day's line.

There is always a tomorrow. Unlucky ones today may be lucky tomorrow. And so on, the next day and the next — always that line of women who wait, and there are similar lines of men. One glimpse at the scores of men standing two by two in a long line before a city mission, waiting for a free sandwich and a chance to sleep, not in a bed, for there are too many men, but at least under a roof, may convince you that it is best to prepare yourself so that you may never have to stand there. Don't be in too big a hurry to start in as a wage earner. You might get a great thrill out of piloting an airplane if you had had very little training, and you might be able to make a safe landing; but statistics show that most of the fatal accidents happen to inexperienced and untrained pilots. Spend your youth training for your life work.

CHAPTER III

EDUCATION YOURS IF YOU WANT IT

In the last chapter we talked about the problem of whether or not it paid to sacrifice the future for immediate financial gain. Before we go any farther answer one question. You are well able now to think seriously and decide things for yourself; so answer this question honestly, "Do I really *want* to stay in school?"

Consult your teachers. If yours is an exceptional case and many outside things must be considered, talk it over with your teachers and the principal of your school. They will be glad to advise you. As a rule, people who have lived longer and who have had a wider experience can see beyond what seem to you unsurmountable obstacles and can see farther into the future. A man with twenty-five years' experience in school work says that after coming in contact with many thousands of young people he is convinced that with few exceptions any girl or boy who *wants badly enough* to finish a four-year high-school course can do so, and that many of them can go on through college as well. Today there are well over a hundred thousand young women and young men, an average of from 20 per cent to 70 per cent on every college campus, earning their way through college.

When day school is not possible. Even if it is absolutely necessary to obtain employment through the day, further education is possible. It can be had through part-time schools, business colleges, trade schools, evening classes, or correspondence schools.

Part-time continuation schools were created for those boys and girls who drop out of school so as to go to work. About two thirds of the states in the Union have laws providing for continuation schools. They are usually maintained at public expense. They emphasize, first, citizenship; second, vocational training. It is important that citizenship training be given first place. Attendance at them is compulsory for all working pupils who have not graduated from a certain grade and who are below a certain age. This age varies from sixteen to eighteen years in the various states. Find out the age limit in your own state. Attendance at evening school cannot be substituted. A set number of hours, varying from four to eight, is required each week over a period of from two to four years. It is interesting to know that in some states the hours spent in school are counted as a part of the regular working hours, and regular pay is received.

Certain conditions have recently reduced the number of pupils in continuation schools. In the past ten years, up to 1937, the number of pupils attending the regulation high schools has been doubled. During the great depression few positions were available to pupils of continuation-school age. Consequently pupils who would otherwise attend continuation school are attending regulation secondary schools or vocational schools. No doubt improved economic conditions will add considerably to present continuation-school attendance; but indications are that two things will happen: ages of continuation-school pupils will be raised, and an increased percentage of pupils of continuation-school age will continue through high school.

Part-time trade schools. Part-time trade schools are maintained by several hundred business firms for the

benefit of their employees. These firms include banks, department stores, public-utilities companies, and manufacturing companies of various kinds. In these company schools some general subjects are usually taught, such as English, salesmanship, economics, and mathematics, along with technical subjects determined by the nature

THE STUDY HOUR

In this large industrial plant apprentices meet once each week for instruction and study

of the trade. From six to seven and a half hours are spent each week in these schools. The rest of the working time is given over to shop practice and actual employment.

If you have to leave school to go to work, a position with some firm where you can keep on with your educational training in such a part-time school has certain evident advantages.

The coöperative industrial school. In New York, Boston, Cincinnati, and a number of other cities business firms coöperate with the high schools in furthering the education of their employees. Under arrangement two persons fill the same position. One of them attends school for two weeks while the other works, then comes back to the job while the first worker attends school for two weeks. In this way practical experience goes hand in hand with further schooling. This movement is growing.

Antioch College at Yellow Springs, Ohio, carries out this idea in higher education. Along with their academic training Antioch students are securing actual experience in occupations such as farming, dairying, home economics, nursing, journalism, insurance, social work, accounting, and engineering. It requires six years instead of four to secure a degree, but a graduate from such a school has, in addition to his college work, training in self-reliance and years of valuable practical experience.

Business colleges and private trade schools. A business college is particularly serviceable for such people as Evelyn Ray. Evelyn had to go to work after she finished high school, and she secured a minor sales position in a department store. Because of poor health she was not able to stand all day. After much investigation and earnest thought she decided to become a stenographer. She entered a business college and now, after a year's work, is qualified for a good stenographic position. Business colleges offer courses in commercial work such as bookkeeping, advertising, stenography and typewriting. Some of them require for entrance the equivalent of a high-school education; others admit almost anyone. Some are of high standard and do a distinct service; others are mediocre. If you find it desirable to take work in one of these schools, what person would it be wise to

consult before selecting a school? If possible, secure some advertising literature from such a school; find out what requirements it has, what courses it offers, etc. In many cities and towns the Young Men's Christian Association offers courses in commercial subjects and salesmanship as well as in various branches of industry.

AN EVENING SCHOOL

Notice the varying ages of the boys and men attending this evening school

Such subjects as beauty culture, millinery, dressmaking, tailoring, and barbering are taught in private trade schools, which, as a rule, are found only in large cities.

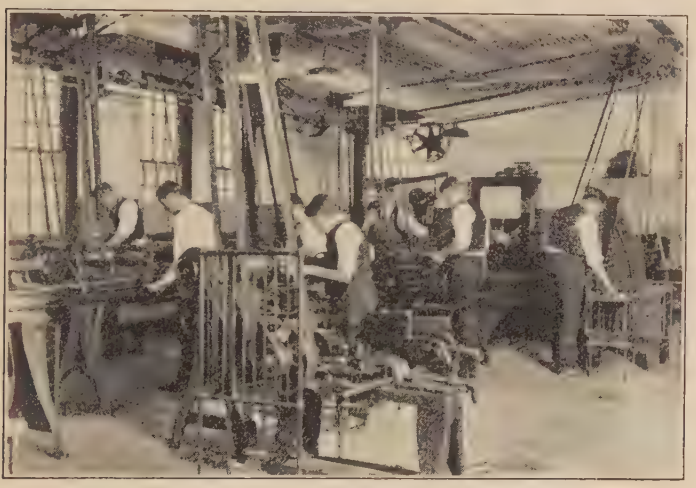
Evening schools. Evening schools have been established for those who cannot get educational training in the daytime. They are for adults rather than children. A boy or girl who works through the day should not have to do school work through the evening. That is the chief reason why the continuation school is preferable.

Correspondence schools. There are a great number of correspondence schools established throughout the country. The better ones are maintained with the earnest desire of helping those who want to advance in knowledge and ability. However, there are so-called correspondence schools which are frauds. Any institution making extravagant offers, such as a diploma and a job at the end of thirty days or six weeks, *is to be avoided.* Whoever sends money to such a so-called school is making what someone has called a "wildcat investment in education." If you know anyone who wants to get in touch with a good correspondence course, advise him to write to his state university or to the state department of education for information or to consult a school principal. Do not trust fair-sounding advertisements. One objection to the correspondence school is that in spite of the good work given by the better schools a vast number of their students do not finish the courses. There are several reasons for this. Often there is no encouragement at home. Then, again, the interest caused by the actual presence of a teacher and fellow students is lacking. It has been estimated that of the great number enrolled in the various correspondence schools, only five out of every hundred complete their courses.

Regular day school best. With all these different kinds of schools, there is little reason for anyone's failing to get educational training. Yet none of them can compare in value with the regular day school. Stay in that through high school if it is at all possible. Education is the cheapest thing you can get; and in later years it will prove invaluable.

Getting a fair start. If you can and do stay in high school, do not be like Donald Rhoe. Donald was one of eight boys taking lessons in swimming. During the first

lessons he had a great time wading about and splashing water in the faces of the other boys, who were earnestly trying to follow the instructions of their teacher. After the tenth lesson they were able to swim some distance and could get beyond his reach. Donald, left staring after them, began to feel that probably he had made a



A SECTION OF A PUBLIC SCHOOL MACHINE SHOP

Thousands of men and boys who must work through the day are spending their evenings in such shops, getting instruction from competent teachers

mistake. Then he began to work with determination, only to find he knew nothing about the various strokes because he had paid no attention to the early lessons. Thoroughly repentant he sought the instructor, to beg his help, but found that he had been called away and would not be back again that summer. So Donald dropped out of the crowd, for the other boys spent most of their time out in water beyond his depth. Worse still, he was unable to join the canoe club because he could not swim well enough.

Most of the girls and boys who fail in school do so because they do not study during the first two or three weeks. They get behind, become discouraged, and many of them drop out of school. Profit by Donald Rhoe's lesson. Give yourself a fair start!

The case of William Allen. William Allen's father, who was a bookkeeper, died last spring when William was seventeen years old. He had no life insurance; and after the hospital and funeral expenses were paid, practically no money was left. Mrs. Allen has a small baby one year old. She herself is not strong. It is necessary for William to support his mother and baby sister.

At the time of his father's death William was a junior in the high school. He ranked with the average student in scholarship, was keenly interested in his debating work, and was a member of the football team. Although manual training was not in the course he had elected, he spent considerable time in the woodworking shop; he enjoys fixing little things about the house, and his mother declares that he is a "natural born" carpenter. He has always taken it for granted that he would go to college; and on his father's advice at the beginning of his junior year he began the course in stenography, hoping to be able to use it in helping to pay his way. It will take another year to complete the course. William has always planned to enter the profession of law. Now upon inquiry he finds that in the state in which he lives he must have five years' training beyond the high school before he can be admitted to the bar. What should he do?

You have just learned the importance of education in making a success in many occupations. What is the wisest course for William to follow? Write out a definite plan. Be prepared to explain why you advise each step.

Find out just what courses are offered in your high school and in what occupations each is important. This can be done through a competent committee from your class or by persuading the high-school principal to come and talk to the class.

If you could have only two years in high school, what courses would you take? Make a list of the different kinds of schools in which you could get further educational training. Which should you choose? Why?

Find out in your community the average wages of the skilled and unskilled workers in masonry, plumbing, automechanics, carpentry, machine-shop work, factory work. Consult some business man who employs a number of people and get his point of view on the value of remaining in school.

A few outstanding men have succeeded with little or no training. How do you account for their success? Have they seen to it that their children are well educated? Why?

CHAPTER IV

HIGHER EDUCATION?

"Uncle Wharton, what shall I do?" asked Hazel Waite, as she entered the office with quick, light steps. "It is such a beautiful day, and I have four means of travel. I can walk, ride my pony, drive father's car, or go on the train. I'd love to walk!"

"Just where are you aiming to land, young lady?" Uncle Wharton's eyes twinkled as he leaned back in his desk chair. "I can't advise before I know that. If it is only three or four miles away, walk by all means. If it is three or four hundred miles away, I advise the train. Then, again, if it's up to the tenth floor of this building, I'd be inclined to take the elevator."

Which is your group? Where are you "aiming to land"? It is well to have a pretty definite idea now as to what you are going to do at the end of your high-school days. It will help you in choosing your high-school course and in deciding what is the most profitable way to spend your vacation. In which of the five groups named in the foreword (p. ix) do you place yourself? Are you planning to enter some occupation when you finish high school? Are you going to some college or university or technical school? How are you going to spend those three or four years directly after high school? How can they be made to bring the greatest returns?

Too many people go to college. Bob Ballentine distractedly ran his fingers through his already ruffled hair. For ten minutes he had been trying to decide what to do with

his unexpected holiday. Should it be football out on the athletic field with the fellows, or should he and Eric get out the boat they had painted and row down the creek

OLD MAIN
Courtesy of Bucknell University

to an interesting cove? "Gee!" sighed Bob. "I wish I was twins; then I could do both. Guess I'll flip a penny and let it decide." He flipped a coin and the two friends got the boat ready for their journey.

No one of you can be twins, and flipping a penny is a poor way to decide an important question. *Should* you go to college? Write down your reasons. Too many people do go. Thousands go for no other reason than that it is the popular thing to do. There are other ways in which many of these young men and women could more wisely spend the four years. You can become a useful member of society and attain financial success without a college education.

The president of one famous university says that a person can sometimes get a better education outside of college doing work he likes than in college attending classes which he dislikes.

Ever since the World War college has been too popular. Hundreds of young men and women who would have been better off in some occupation have flocked to the colleges. It is true there are a number of professions that are closed to a person without a college education; however, if the occupation in which you are most interested is not among them, that need not bother you. Are you thinking of going to college because all the other boys and girls are going? because you want to get on the football team? because you want to make a sorority and have a good time? because it is the easiest thing to do and your parents desire it? because you feel confident the training you get there will help you greatly in your future? Your decision is one which determines the use of some very important years.

Should these persons go to college? George Brown's father is a doctor. So was his grandfather. George is a fine, dependable boy, but he is not a good student. He sticks doggedly by his algebra until he solves every problem; but it takes his whole evening, and little time is left for his other studies. He failed last year in chemistry,

and he would rather do a hard day's work than write an English composition. The woodworking shop, however, is his delight. He spends every spare minute there, working happily away on a bookcase he is making. It is a pleasure to him just to touch his tools, and for four

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TORONTO UNIVERSITY, TORONTO, CANADA

months he has been saving his money for a new drill. Yet his family want very much to have George become a doctor. To become a doctor one should not only finish four years of college but take four additional years in a medical school. After that, at least one year must be spent in actual experience as a hospital interne. Should George go to college? What would you do in his place? What should his father do? Glance again over Chapter II.

What about Peggy Wilson? She has a bright, quick mind, but she hasn't the least desire to go to college and

is convinced that she will never enjoy studying. She is deeply interested in music. Should she be urged to go to college?

If it is exceedingly difficult for you to get your lessons, even with earnest effort, should you finish high school? What about college?

Qualifications necessary to success. There are some professions in which only those who are capable of getting high marks in school can succeed; but in the majority of occupations success depends primarily upon a determination to make good, a genial personality, a deep interest in the work, and a willingness to work. The higher your mental capacity, of course, the greater usually is the number of vocations in which you could be successful.

Honorable occupations. There is an important truth to remember. Any labor that is honest is honorable. A capable, honest ditch-digger is entitled to as much respect as an eminent lawyer. The woman who keeps a pleasant, satisfactory home for her nineteen boarders fulfills her job and is as successful in her way as is an honest judge on the bench of the nation's Supreme Court.

Those who should attend college. If you have an alert, keen mind, and if your scholarship in your hardest subject is high, you should attend some college. Read the two following quotations over carefully. Is there anything contained in either with which you do not agree?

I tell you today that the tragedy of modern life is the tragedy of the half-educated man or woman; it is the tragedy of the man or woman who wants to do something and can do nothing well. — HAMILTON W. MABIE

If you desire to make of life the largest possible service, the fullest personal satisfaction, the greatest power to achieve something worth while, you will choose to attend some college. — WILLIAM DOXSEE

Lack of money no bar. Lack of money should not keep you back. About 38 per cent of all the students on the Yale campus in 1937 were earning their way either in whole or in part. From 20 per cent to 70 per cent of the students on any college campus are working their way through, partly or entirely. Some people prefer to work

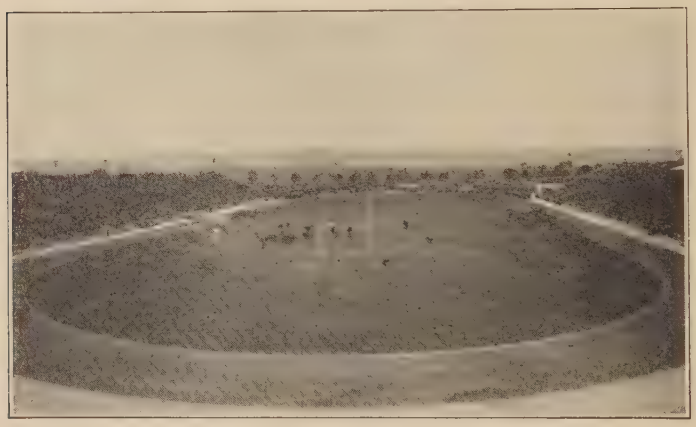
THE OLD EAST DORMITORY

Oldest state-university building in America. The cornerstone was laid October 12, 1793. (Courtesy of the University of North Carolina)

for several years and then go to college on what they have saved. Age need be no hindrance, as there are students in college all the way from seventeen years to seventy.

College friends worth while. What sort of associates are you likely to have in college? Are the friends made there more valuable or more intimate than those made elsewhere? A successful business man declared he would give the biggest part of his wealth for four years spent in college, not so much for the educational advantages as for the invaluable friendships formed there.

Another advantage. It has been estimated that of men who enter business 90 per cent of the college men and 25 per cent of those not college-trained succeed. Dean Lord, of the Boston University College of Business Administration, says that the college or technical-school graduate at the age of twenty-eight is earning as much as the high-school graduate at the age of forty; and that his



A MODERN COLLEGE STADIUM
Courtesy of Bucknell University

earnings from twenty-two to sixty amount to $160,000–$200,000, which is $72,000 more than the high-school graduate earns between the ages of eighteen and sixty.

Choose your college carefully. If you decide to go to some institution of higher learning, choose that institution carefully. Someone has said that there are only two decisions in life more important than that of choosing a school in which you invest four years of your life: one is the choice of a husband or wife, and the other is the choice of a career. Do you want a large or a small college? a private or a state institution? a coeducational college or

otherwise? Should the college be in your part of the country or in an entirely different section? Is it wise to attend a college in your home town?

In a large college you will find more varied subjects and courses, better concerts, and more free lectures. Large institutions have on their faculties distinguished

CHRIST'S COLLEGE, OXFORD, ENGLAND

scholars, men sometimes internationally famous. There is a greater chance to be lost in the crowd, but more honor if you rise above it. There are in all parts of the country organized alumni groups from large colleges. True, the lectures may be neglected and the concerts draw no larger crowds than those in small institutions. Personal acquaintance with distinguished professors is not always easy; the lower classes are frequently taught by the younger, less experienced men. Four years in a large college will probably result in a wider speaking

acquaintance, an acquaintance with people from many lands, but there may be fewer intimate friends. It is sometimes said that there is more intense college loyalty in a small institution than in a large one. There is more chance to make a team, to be taken on the college-newspaper staff, to be chosen for various offices.

Set down the reasons for and against two of the resolutions below:

Resolved, That it is wiser for the average person to attend a small college rather than a large one.

Resolved, That it is better for either a boy or a girl to attend a coeducational college.

Resolved, That it is wiser for a person brought up in the western part of the country to attend college in the eastern part.

There are over fourteen hundred institutions of higher learning in the United States and Canada. When you choose the one you want for your own, consider these three fundamental points:

1. The standing in the country of the institution and of the faculty.
2. The educational facilities.
3. The spirit of loyalty among undergraduates and alumni.

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PART TWO. VOCATIONAL GUIDANCE

For the sake of convenience the occupations discussed in the following chapters are classified under four main heads: agricultural, industrial, commercial, and professional.

Two of the occupations stand apart as belonging to more than one group: civil service, which ranges all the way from the ambassadorship to England to the position of janitor of a public building; and home-making, some phases of which must be classed under each of the four main divisions.

AGRICULTURAL OCCUPATIONS

CHAPTER V

FARMING

George Carnall has a big problem. An uncle whose namesake he is has offered him a splendid farm of two hundred and fifteen acres, provided George takes an agricultural course in college and agrees to take over the farm personally. George has thought over the question seriously, he has talked with his parents and his teachers and he has done some thoughtful reading. As a result of his thinking and investigation he has made out a list of arguments for and against the proposition. Can you add to his lists?

Against

1. A farmer seldom has much money.
2. He gets few vacations.
3. He works long hours.
4. Uncertain weather — too early frost, too much or too little rain, hail, etc. — may ruin his crops at any time.
5. He doesn't have so much fun as people in town.

For

1. A farmer takes orders from no one: he leads an independent, contented life.
2. Since he has from his own farm fresh vegetables, fruit, meat, eggs, butter, cheese, flour, meal, and sometimes gas, coal, or wood, it follows that rent, grocery bills, and fuel bills are largely taken care of, and he doesn't need much ready money.
3. Tractors and other modern machinery lighten work.
4. The hours are long, but work in the open is healthful.

Can you think of any more arguments on either side? Here is a letter from his Uncle George:

A LETTER OF INFORMATION

Dear Nephew:

I am glad you are thinking this matter over carefully. I'd hate for you to regret your decision either way, and I'm glad to answer your questions. You say in most any other job your day would be an eight-hour day. Have you considered how long it will take to go to and from your work? What happens if you are late to work? A farmer's hours are his own.

NEW MARKET OATS

You say a farmer never gets a vacation. Is it because he *cannot* or because he does not *arrange* to take one? When a business man takes a vacation he does not close shop, but sees that other folks keep the business going. A farmer can do the same thing. And while he is away his income does not stop: his crops and stock are growing and producing.

To be sure, the weather is a real handicap at times. It rains when crops should be harvested, and frost comes when plants are tender. But rain seldom ruins an entire crop, and frost even more seldom ruins crops that are adapted to a particular locality. Some people try to raise watermelons where wheat would be better. Nowadays, you know, a farmer can take out crop insurance against bad weather conditions.

Insects do sometimes ruin crops, but the most up-and-coming

bug has a losing race with the agricultural colleges and experiment stations. There have been times when these pests have been a well-disguised blessing. In a little town down in Georgia there's a monument to the boll weevil, and the inscription reads something like this: "To the boll weevil, who by his destruction of our cotton crop taught us diversification of crops, a circumstance which has meant prosperity to the entire community."

Now about the farmer's not having so much fun as city folks. That, of course, depends on your definition of fun. If it is noise and excitement, dodging taxis and creditors, going to a theater every night, seeing big-league baseball games and prize fights, then, I guess, you are right. Out here we go to baseball games and sometimes play in them. We go to the finest kind of community gatherings, where everyone can take part, and we are among real friends and neighbors. We hear the best music and splendid sermons over the radio. We have a daily delivery of mail and get good magazines. Most of us have cars, and with improved roads it takes very little time to run in to a good show.

Guess I'll ring off, lad. The traveling library was along today and left some interesting-looking books. When a fellow gets to be nearly seventy, as I am —

Yours for a wise decision,

Uncle George

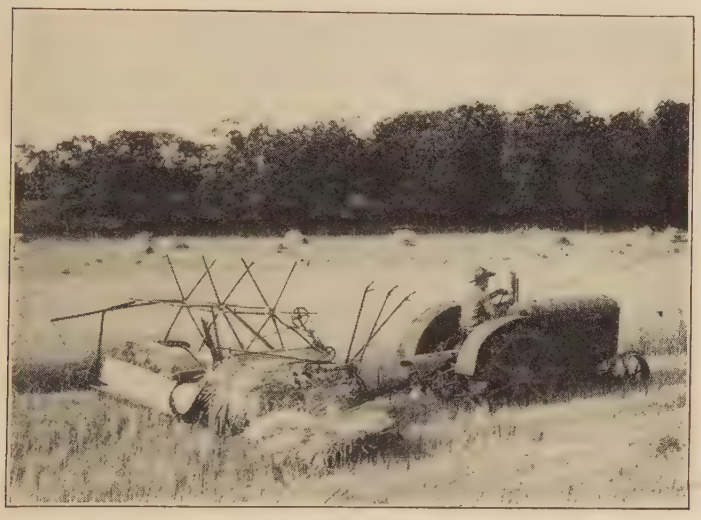
Here are some further things George learned in his reading. A farmer must be a good salesman to dispose of his produce. He must know market demands and he must know how to prepare his produce for market, how to approach people, and how to deal with other business men. By being honest in all his dealings and placing service above profits he will attract customers who will not only stay with him year after year but will bring their friends to buy his products. He must, through crop rotation and the continued use of fertilizers, prevent his soil from "wearing out" or becoming poor. Through county farm agents and state agricultural stations he can find out without charge the right fertilizer for his ground.

Education needed. Farming is a science, and to be successful a farmer must have an education. In farming, as in other occupations, those who have training are the more successful. No young person in these days should think of becoming a farmer without some education above the grade school. Statistics show that college graduates make the most successful farmers (see page 15).

The farmer needs two kinds of education. He should have a good general education which will enable him to enjoy the better things of life and to mingle successfully with his fellow men, and he should have training specifically for farming. He must know soils, crops, animals, fertilizers, and rotation of crops. If he is specializing in some branch of farming, he should make himself an authority on that. He must learn the best things that are being done in his field, and he must continually experiment on a small scale. Probably no other farmer had more pleasure in his work than did Luther Burbank. His pleasure came from experimenting with and constantly improving plants. Every farmer can do these things in a small way if he is willing to study his products carefully and work patiently and long.

Even if a boy's father cannot pay his way through college, nearly all boys can finish a high-school course today. Many rural districts have high schools which offer general courses in agriculture. The boy who has finished high school and has a good mind can usually put himself through college if he wants to. However, the boy who feels it impossible to carry his education beyond the high school can take correspondence courses with his state agricultural college or take short courses offered in winter especially for busy farmers. He can get his name on the mailing lists of the United States and state de-

partments of agriculture and on that of the state agricultural college. In this way he will receive many helpful bulletins covering his problems. A number of excellent farmers' magazines are published containing articles written by practical farmers and experts. No one should attempt to farm without keeping informed on what the



REAPING WHEAT

With this combination of tractor and binder one man can harvest twenty-five to forty acres of grain in a ten-hour day

most successful farmers are doing. Try to get copies of *The Country Gentleman, Farm and Fireside, Farm and Home* and other magazines dealing with farm life. Examine them carefully. Is the material interesting?

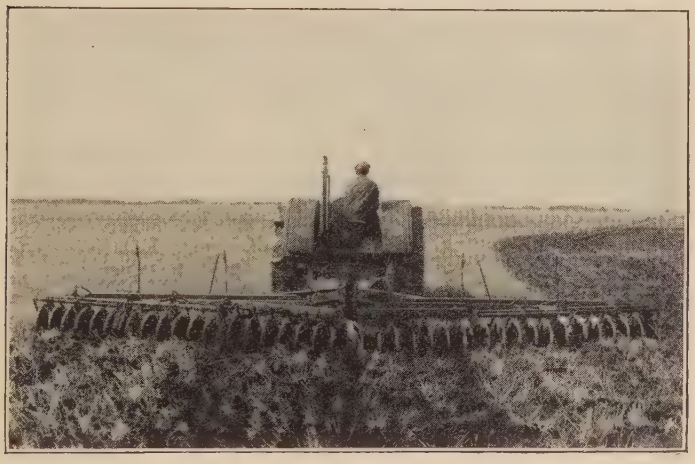
Getting into farm work. Many men who are successful farmers today have started as hired hands on farms. After learning the rudiments of the work and laying aside some money they have rented farms and gone into business for themselves. After some years they have been

able to buy farms of their own. So you see you can advance in farming by the same route as in any other kind of business. Recently the Federal government has established farm loan banks, which are empowered to issue bonds. These bonds are sold and the money is lent to men to aid them in buying farms. The borrower gives a mortgage to the United States government and pays only ordinary interest each year, a small fraction of which is applied on the principal.

Here is a problem. Harry Richards desires to obtain a farm. He has $2000 in cash. He can buy a forty-acre farm for $3500. Find out the exact conditions of the Federal farm loan plan and see whether he can make the purchase. If he can, how much must he pay each year, and how long will it take him to pay for the farm? You might write to the United States Department of Agriculture of Washington, D.C., for the *Farm Loan Primer*. Do you know a farmer who is paying for his farm with the aid of the Federal farm loan? If so, ask him his opinion of this sort of assistance.

A boy who starts out as a farm laborer may receive from $30 to $75 a month, and board. Of this he is usually able to save a large percentage. The United States Department of Agriculture says it is comparatively easy for three out of every four farm laborers to acquire farms of their own. The young person who plans to buy a farm must be careful to keep down expenses. Many a young man beginning farming has given his note to pay for tractors, auto trucks, and other machinery which were not strictly necessary. He forgets that only the man who farms on a large scale can afford to invest heavily in machinery. "Small" farmers should either do without certain kinds of machinery or buy it on the partnership plan. By this plan several men on small farms buy a

reaper, a tractor, a potato-digger, or other machinery which serves them all with little inconvenience and which costs each man comparatively little. Before adopting this plan one must be very sure that the partners are all reasonable men, who are willing to be absolutely fair in their dealings; otherwise he may find the partnership plan unsuccessful and have to make other arrangements.



A TWENTY-ONE FOOT DISK HARROW

Farm management. The young man who is well trained, especially if he has a college education, may become a farm manager. His job then will be to plan the work and see that others do it properly. A farm manager receives a fair yearly salary and in a few cases a very good salary. There are more positions of this type than there are men to fill them.

Farmer gives vital service. The young person taking up farming should not look upon it as merely giving him financial returns for his work and planning. He should think of it as an opportunity to help other people, or, as

we say, to benefit humanity. The idea of service should be always in his mind. He can always feel that the thing he offers for sale is needed to clothe or feed people or give them harmless enjoyment. He should always feel that this duty is too precious for him to jeopardize by anything but the best possible product on honorable terms.

GOVERNOR R. V. DONEHEY OF OHIO AT WHEEL OF HARVESTER THRESHER

Wheat harvested by this machine was rushed to neighboring mills, made immediately into flour, and five hours and twenty minutes after being harvested was served in the form of biscuits

Personal qualifications. What are the qualifications that will make you a successful farmer? You must be fond of outdoor life. At times you will have to work outside when you would rather be indoors. This will require a fairly rugged constitution at the start. You will need to be able to do hard manual labor. Not all the work on a farm is hard work — in fact, most of it is not; but the farmer is occasionally called upon to work very hard. During seedtime and harvest time he

has to work long hours. Many a farmer who uses a tractor works far into the night during the plowing and seeding season. But his work is no more strenuous than running a gasoline tractor. He works alone and has an opportunity to think. If he is unable to think, he may become very lonely. He will need patience to await the results of his work. The person who must have his pay at the end of the week will not be a successful farmer. He needs to be able to wait, sometimes for years, as in the case of the large fruit-grower. The person of low intelligence may hope to make very small success as a farmer. No one needs to plan his work more carefully or calculate the cost more minutely. Any farmer who continues to raise crops or to keep animals that cause an annual loss may expect to continue unsuccessful. The farmer who is a good bookkeeper as well as a good executive, who can get people to work happily and yet industriously, who can meet people and dispose of his crops, who is interested in the better movements in the community, and who is willing to put the community good ahead of his own profit is the person who will succeed.

1. General Farming

Why general farming? There are many kinds of farming. However, before discussing these let us see first what we mean by the term "general farming." You remember the story of the monument to the boll weevil which had taught the people diversified farming. General farming means diversified farming: the raising of several crops or types of animals instead of one. In some of the Western states wheat or corn has been raised exclusively because the land is well adapted to it. But occasionally there will come a bad year when the weather

is too dry or too wet or when some kind of blight strikes the crop. Then the farmer has nothing on which to depend for his income; he must borrow money or live on his savings. This type of farming (one-crop farming) has ruined many a farmer who was unable to live for a year or several years without raising successful crops.

A variety of crops wise. Many who were formerly one-crop farmers have wisely decided that they do better to have several crops, some one or more of which can be depended on each year. In the northern parts of the temperate zone the general farmer usually raises corn, oats, wheat, hay, potatoes, buckwheat, sugar beets, garden truck, cattle, hogs, chickens, etc. Frequently he has a small patch of strawberries, raspberries, or other small fruit, or an orchard of good fruit trees, from which he can obtain a welcome income at a slack period of the year. In this way most farmers usually have several successful crops and a steady income from at least one of the several sources.

2. Dairying

Selection of location. Of the various kinds of stock farming, dairying is one that is widely scattered and interesting. Those within easy reach of a large city might wisely investigate dairying as a possible business of their own. Why is it that New York is one of the greatest dairy states? Many farms in that state are given up almost entirely to pasture, and all grain and winter feed is purchased for the cows. Is this good business? Remember that the great grain and corn belt in the United States is in the Middle West. Cows should have a fairly large pasture land to range over. What about the comparative land values in the East and the Middle West?

Few specialized dairies. Dairying is usually carried on in connection with other kinds of farming, and from the nature of the work the combination is a good one. It provides winter work when regular work is suspended and takes care of the labor problem during the rest of the year. One man cannot well care for more than ten to fifteen cows, because the muscles of the hands can stand

MODERN DAIRY STABLE

only a limited amount of strain. It has been estimated that in well-managed dairies where milk is sold by wholesale, it requires one hundred and fifty hours of labor per cow per year. So ten to twelve cows provide about half-time work for one man. By raising crops, fruits, or vegetables for sale, many men and women have increased their receipts from 25 per cent to 100 per cent, with practically the same man-and-horse labor. Others, by using milking machines, have done even better, as by this means one man can milk several cows at one time.

Dairying combines well with other kinds of farming for other reasons: it uses the waste lands for pasture, furnishes manure for fertilizing the whole farm, and provides work for those not strong enough to do regular farm work.

Of course there are cases where specialized dairying pays best; but, as a rule, the most successful dairymen are those who combine their work with raising cash crops. Apples, potatoes, cabbage, corn, barley, oats, wheat, etc. are some of these cash crops. Which ones to choose must depend upon the soil and climate.

The successful dairyman. To succeed in the dairy business, one should have a scientific training for the work. He must be able to make a careful selection of stock, must know the best foods for winter and summer, must have a knowledge of the best kinds of buildings for the work, must know the markets, and must be able to keep accurate accounts. Careful records should be kept of each cow, so that it can be learned just what foods produce the greatest amount of butter fat, the most milk, and so on. There are more than one hundred agricultural schools and colleges in the United States, most of them having courses in dairying. Some of them offer four-year courses and require a high-school education for entrance; in others two-year courses are offered, and for men and women of experience even shorter courses are given.

The government has made extensive experiments in its laboratories and on its farms, and the dairyman can have for the asking bulletins on various phases of the work. State departments and agricultural schools also have helpful bulletins for the dairyman.

Someone has said that milking a cow has come to resemble a surgical operation, so scrupulously clean must

the operation be. Stalls, the separate feeding and drinking troughs, the animals themselves, must be thoroughly clean. In many places the milker must don clean white garments before milking a cow. Then the milk must be cooled immediately after milking and kept cold until it is delivered in sterilized bottles to the consumer.

A PEACEFUL SCENE

Experience needed. Educational training does not take the place of experience. The better schools require some experience on a dairy farm before they issue a diploma. No one should go into the business without experience. Boys and girls can usually get summer work on a farm where they can try out their fondness for animals and their interest in general dairying as an occupation. In dairy work they will find that Sunday is a workday along with the others and that someone must always be on the job.

Financial return. Anyone can make a fair living in the dairying business provided he has training, a genuine liking for the work, and a fair location. The work is out of doors and healthful. The surroundings are not conducive to spending; and since many of the necessities for living are found on such a farm, the money made is mostly profit. The investment necessary is comparatively large. There is a demand for the trained dairyman to take charge of large dairies, especially in the Middle West.

There is always a market for dairy products. About eight million gallons of fresh milk are consumed in the United States each day. Doctors prescribe dairy products, including milk, cream, butter, cheese, and ice cream, as the finest kinds of food. The person engaged in dairying may feel that he has a safe business which is of utmost importance to his fellow men.

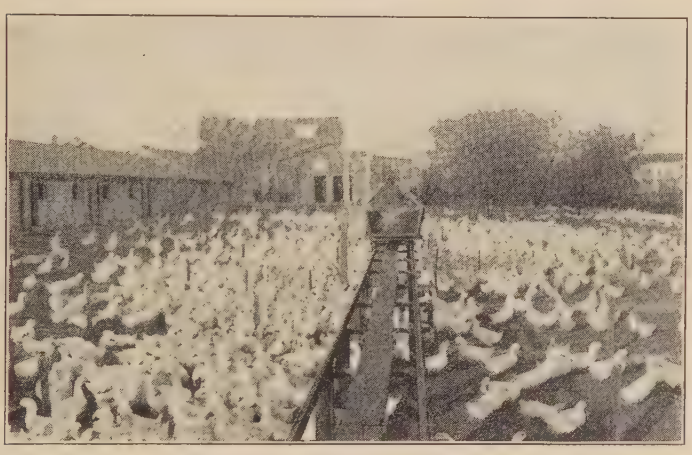
If you can, find out (1) how much milk a cow averages per day, (2) what breed of cattle gives the most milk, and (3) what breed gives the richest milk.

Dairy farms should be more fertile and better kept than other farms. Why?

3. Poultry-Raising

A varied occupation. Poultry-raising may be varied to include geese, ducks, turkeys, guinea fowls, or chickens. In the chicken field alone there are a number of different lines. You may select large fowls and specialize in dressed poultry for the table; you may purchase those that are too small for the table but are good layers and good food-getters; or you may choose the kind of chicken that is fairly large, a fairly good layer, and fairly energetic about scratching for food. Investigate and find out the kinds that excel in these three lines. Find out what the price of dressed chickens is. At what time of the year

is the price lowest and at what time is it highest? Can you give a reason for the difference in price? A great many people raise chickens and sell eggs in a small way, but there is a growing demand for specialists in the business: for incubator specialists who furnish throughout a term of months day-old chicks, for fattening



FEEDING TIME AT A DUCK FARM

Six thousand choice Long Island birds are here being fattened for the approaching Thanksgiving Day feast. Feeding time is a busy time. The feed is in trucks and is rolled along the track. Feed is dumped in each pond as the ducks gather around

stations, for packing plants, for those who specialize in broilers, etc. Besides these lines, the government is employing many women and men in its laboratories and in its experimental farms in poultry and egg work.

No big investment needed. Unlike stock-raising and dairying, no large investment is needed to enter this occupation. It is wise to start in a small way and gradually develop your business. In this way your skill and ability in caring for your chickens increases with your

experience. State colleges throughout the country offer courses in animal husbandry varying in length from four years to a few months, and many country public schools offer courses in poultry-raising. We find that it is usually the man with educational training whose hens lay the most eggs at the right season, and there is the best of reasons for this.

Importance of the occupation. Did you know that in one year in the United States over a billion dollars were spent for eggs and dressed poultry? The demand for eggs increases with the growth of the population chiefly because of the comparatively high price of meat. Many thousands of people without any scientific knowledge or training raise chickens to sell. For the comparatively few who are trained, there is a wide opportunity. Great hotels and restaurants, hospitals, clubs, college dormitories, and fraternity houses demand an unfailing supply of fresh eggs and dressed poultry. Railroad companies, ship companies, and the like must be supplied. Commission merchants, who sell on a commission basis, are always available to help you in the selling.

Qualifications necessary for success. While no great capital or any special physical strength is needed to make a success of poultry-raising, a live interest in the work is essential. With that you can forget the long hours sometimes necessary and the recurring disappointments. You must have an eye for details and the patience to keep after them. Right breeding and right feeding cause an increase in egg production; so these things must be studied. You should know chemistry and something of general science.

It is interesting to know that chickens hatched in March begin to lay in November and December, when prices are highest; but you must know, too, the im-

portance of keeping the chicken houses clean and sanitary, and you should know how to do it scientifically. You must know also the elements needed in the food to bring about the results you desire.

Advantages of the occupation. Mrs. Mays, who has made a success of poultry-raising, declares it is an ideal life for an energetic woman. It requires small capital.

HAMPSHIRE HOGS

Courtesy of the United States Reclamation Service

The hours are long at times, but the work is not heavy. It is an outdoor occupation, and so a healthful one. The owner has practically unlimited opportunities to make his business grow and develop. His life is independent, and he is free to make experiments.

The poultry business rests on a human need. The fact that Canada consumes twice as many eggs per capita as does the United States suggests the opportunities for the development of the business in the latter country.

4. Stock-Raising

Stock-raising a wide field. The various kinds of stock farms are limited only by the kinds of animals raised. What kinds can you name? For the person who likes animals this occupation offers an attractive field. Most stock-raising on a *large scale* is done in the Western

STOCK-RAISING CATTLE RANCH

A South Dakota round-up of beef steers, with several hundred animals, just driven into a pen, going around in a circle

states. In the Western mountains and in the foothills sheep-raising is important; on the Western plains large herds of cattle now graze where the buffalo formerly roamed. Here prairie grass, one of the most nutritious of grasses, is found in abundance. Formerly the cattle roamed at large, and their ownership was known only by the "brand" burned on the side; now, however, most large stock farms are fenced, and cowboys "ride the fences" to see that these are kept in good condition.

Hogs are raised east of the great plains in Iowa, Missouri, and Illinois. Here much corn is grown and fed to the hogs on the farm. To be sure, many cattle are raised on smaller farms as one travels east from the prairies. In the Northern states cattle must be fed in the winter; in the Southern states they graze the entire year. To engage in stock-raising, one must have considerable capital, and he is wise if he chooses a location where winters are short and no shelter and little feed are required.

Qualifications for success. Skill in stock-raising comes with time and education, for the occupation can be acquired; but the necessary natural love for animals and patience with them must be inborn. If a person loves animals and is a good judge of live stock, there are fine opportunities for success. Perseverance and the ability to manage employees are needed. Since a comparatively large investment is required (especially if blooded stock is wanted), one can begin on a small scale along with general farming and gradually acquire a greater number of animals.

The work is more or less trying; but for one who enjoys contact with animals and a vigorous outdoor life, it offers a pleasant and interesting vocation.

5. Truck Gardening, Flowers, Small Fruit

Truck gardening. Most general farmers do some truck gardening. As was suggested before, it is well for the general farmer to have a side line, such as a strawberry patch or other small fruit, on which he can depend for income at times when there is no other harvest. But there are many farmers who do nothing but raise garden truck for sale. Truck gardening provides fresh fruits and vegetables for immediate use. Certain fruits and vege-

tables will keep fresh only a short time, and it is necessary for the truck farm to be located where markets are accessible. Shipments must be made with speed and must have exceptional care in handling. A few years ago it was very difficult for one to buy fruit in good condition if it had been shipped any distance; today, on account of care in picking, packing, and shipping, people in cities are able to buy produce in almost as good condition as when it left the farm. An advantage in truck farming is that the farmer can so arrange his crops and his planting that he will have something to harvest almost every week during the summer. If he has a hothouse, he can raise any vegetable at any time in the year. Maintaining a hothouse is expensive; but crops raised in it sell for high prices, and the keeper of a hothouse may expect to have a steady income the year round.

Acres under glass. Within an hour's drive about some of our larger inland cities you may see acres of glass-inclosed space. That is where the city's early tomatoes, lettuce, radishes, spinach, etc. come from. Under this glass, truck gardeners start practically all their young plants. Here, too, vegetables and berries are grown for winter trade. Can you tell exactly why these must be sold at high prices?

Location. Green stuff is perishable and it is bulky, and so it usually is grown near big markets. There is a second general field of truck gardening, and that is in the South, where vegetables and small fruits are grown and shipped early in the season to Northern markets. At that time of year there is small competition from local Northern truck farms.

Truck farms small and well cared for. These truck farms are comparatively small, and every available foot is intensively cultivated. Some of the Japanese truck gar-

deners on the west coast give as much careful attention to each single strawberry plant as is usually accorded a rare flower.

The Southern truck farmer can usually plant, grow, harvest, and ship his crops of early vegetables and small fruits before the busy season in cotton, corn, and wheat begins. By careful planning he can grow as many as four or five different crops in the same growing season. However, because he is far away from the large Northern markets he is sometimes at a disadvantage.

TRUCK GARDENING IN COLORADO

Farmer loading his truck with garden products for market

The problem of marketing. It is frequently far easier to grow vegetables than it is to sell them. The small grower usually retails his produce through the streets, where he may have regular customers, or he may have a stall at the market place where he sells his wares. If, like the larger growers, he sells through a commission merchant, his produce goes through many hands. If it is shipped, it must go through the hands of transportation companies. It is then taken by draymen to the commission merchant. From there it goes to the jobber, and through him to the retail stores. The Department of Agriculture at Washington, D.C., estimates that the grower gets one third of the price paid by the consumer.

Who suffers chiefly if the commission men are careless in handling perishable produce? Bring to class an advertisement for selling California fruits, Hawaiian pineapples, apples, etc. Some growers have combined and organized to sell their own crops. They conduct extensive advertising campaigns and so do away with at least one middleman. Are these growers the only ones to profit by such an arrangement?

Have you ever wondered what becomes of those fruits and vegetables which the growers are not able to sell? In many places canneries are established to take care of them. Where there are no canneries, marketing ability is sorely needed. A book written by Edna Ferber called *So Big* tells an interesting story of a woman's early struggles in marketing her produce and how she succeeded.

Training needed. A varied scientific knowledge is needed for successful truck gardening. Experience with an established gardener is very helpful. You must have a knowledge of soils, of plant food for particular plants, and of when and how to plant them. You must be a good business man or woman, keep careful accounts, and be able to market the things you raise. You should have a knowledge of how to keep live stock and should recognize the value of really good tools. On a big farm a tractor plow may pay for itself in a single season in labor saved.

Service rendered. Probably few truck farmers stop to consider the great service they are performing. Few boys and girls know that scurvy, that dread disease of war time and of the polar regions, is caused by lack of fresh vegetables. Pellagra, too, a disease prevalent among the poor of the South, is thought to be caused by the same lack. You no doubt know that physicians everywhere prescribe more and more fresh fruits and succulent vegetables for the properly balanced diet. Some people sell

articles known to be harmful to those who use them, but the truck gardener is not likely to be guilty of such wrongdoing. His call on the street should be a welcome one, and the boy or girl considering a life of service may well find out more of the life and work of the truck gardener.

INTERIOR OF A LARGE GREENHOUSE

Where thousands of carnations are raised to supply the trade

Flower culture. The growing of cut flowers and potted plants is a side line engaged in by many persons. Most of the flowers sold commercially, however, are grown by highly trained specialists, each of whom confines his efforts to one or two kinds. To those who love flowers it is a delightful though painstaking occupation. In some of the European countries — among them Rumania and Bulgaria, Spain and France — flower culture is one of the chief occupations. There great fields of flowers are grown for the manufacture of choice perfumes. This industry

may have an interesting future in Florida and other Southern states, where experiments are being made.

There is always a demand for cut flowers. Anna Gaskell persuaded her father to give her space on his small truck farm for the culture of flowers, and made such a success of selling her blossoms the first year that her father gave her a section of his greenhouse for her plants and flowers. These succeeded so well that the following year she was given half the space in the greenhouse. Now, after five years, the former truck farm is known as Gaskell's Florist Farm, and the small greenhouse has expanded until it covers two acres.

To succeed as a florist. Miss Gaskell does more than cut fragrant blossoms for wax-paper-lined boxes, or for display in great vases and dainty baskets in her Broadway flower shop. In the first place, she finished high school, specializing in the science courses; and the summer after her father told her she might have half the greenhouse for her flowers she took a course at the university to learn more about her work. She says that the work of the florist is never-ending, that it requires painstaking patience and constant care. Then, too, if a florist is to market his wares he must have a knowledge of markets and of people. He must keep careful accounts and be able to choose and manage employees.

Fruit-growing. Small fruits (especially berries) must, like cut flowers, find a quick market. The use of the refrigerator car and careful attention to packing help greatly in shipping; but unless there is some fruit-growers' association the fruit at the end of its journey has still to pass through the hands of the commission merchant, the jobber, and the retail man before it reaches the consumer. So the question of a ready market not too far distant is an important one.

Two other things of prime importance are climate and soil. The departments of agriculture, both state and national, maintain experiment stations and laboratories which issue bulletins regarding the right kinds of soil, plants, trees, spraying materials, and times for planting.

Any boy or girl may begin the growing of small fruits with only a limited ground space and find a ready market for all he can raise in his own community. Can you imagine anyone not wanting a box of luscious berries fresh from the dewy vines? Any fruit has a far more delicious flavor when it is allowed to ripen on its own vine, bush, or tree.

FOUR-YEAR-OLD GRAPEFRUIT TREE

Other agricultural pursuits. There are a number of other interesting agricultural occupations you might be interested in investigating. Can you add to the following list?

Orange-grower	Nurseryman
Beekeeper	Apple-grower
Seedsman	Swine-raiser

The census list includes fishing in the agricultural group. Some one of you might enjoy looking up this occupation as a regular vocation. Consult the outline on page 379.

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CHAPTER VI

FORESTRY

Can you imagine a park without a tree? Close your eyes and visualize such a park. What do you see?

Uses of lumber. How bare and unattractive our lawns and parks, our countryside, and our mountains would be without trees! But are trees only beautiful? Make a list, naming as many uses for trees as you can. Do not stop until you feel that you have a complete list. In Philadelphia no frame houses are allowed to be built within the city limits. Is any wood necessary in houses built of other materials?

Look about you. What articles originally came from trees? The very book from which you study was once a part of a tree. Nine tenths of all our paper is made from wood pulp. Think of the millions of paper bags used by grocery stores, the cereal boxes, the tons of paper used in Sunday newspapers. All barrels and boxes, most of our furniture, the chair on which you sit, the wooden bed on which you may sleep, the floor beneath your feet, all were at one time a part of a forest. These are suggestions for your list.

Forester gives valuable service. In Europe the man who looks after the preservation of a country's forests has long been regarded as an important and valued government official. In the Western Hemisphere he is recognized more and more as one of the most necessary and serviceable agents to his country. Just what does he do? What are his chief duties?

Answer this letter. Several years ago John Carwell fell heir to a thousand acres of valuable wooded land. Magnificent old oak and virgin pine trees covered it. Realizing that this property could be made a source of continual and increasing value, Mr. Carwell wrote to Jim Wilson, a man who had spent his life in the woods, and asked him to serve as his forester. Jim wrote back:

Dear Mr. Carwell:

I'm not sure I know just what being a forester means. Tell me what you want me to do, and I'll do it. If I can't do it all, I'll get somebody that can. If it needs more training and education than I've got, tell me that. I've got a boy just finishing high school, and he wants to be a first-class forester. If you can tell me how he ought to go about to be one, I'd appreciate it. Can I teach him all he needs to know, or should he go off and study a year or two? I'd like to know, too, how much money a first-class forester gets, though that is the least important thing about it if he loves the woods as I do.

Yours truly,

Jim Wilson

After you have read the rest of this chapter write a letter to Jim Wilson answering all his questions.

Necessary personal qualifications. Both Jim and his son have the first vital essential of a forester, love of the woods. In addition a forester must have a rugged constitution to endure constant exposure in all sorts of weather. He must have intelligence of a high order and good judgment, because of the nature and responsibility of his work. He should have an interest in science, for studying nature at first-hand. He must have executive ability, for he has to direct labor in many forms. He must have thorough training for his work and a desire to serve his country.

What the forester does. Now for the actual work he has to do. First and foremost he must guard against fire,

the forests' greatest enemy. Unless some plan has already been worked out, he must plan a system of fire protection. He must map his area and determine the amount and value of all timber. He must survey and oversee the building of necessary roads, bridges, and trails. These not only make different parts of the forest accessible for

A PART OF OUR NATIONAL FOREST RESERVE

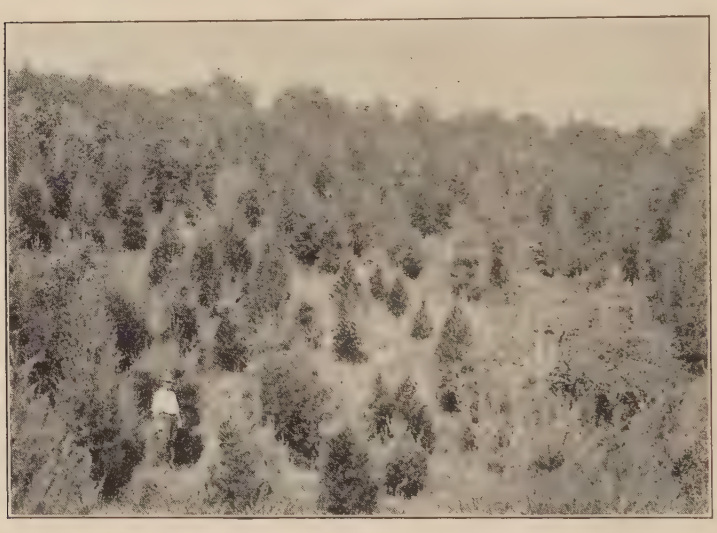
Mount Jefferson and forest of western hemlock, Douglas spruce, and alpine fir, Santiam National Forest, Oregon

pleasure purposes, but are of great importance in the prevention of fires and in fighting them. The forester must conduct lumbering operations, operate nurseries for reforesting, and advise and oversee campers and hunters. He must know how to combat fungous diseases of trees and how to protect his trees against destructive insects.

Will Jim Wilson, with his eighth-grade education and his experience of some twenty-five years in the woods, be able to take adequate care of Mr. Carwell's valuable

timber? Can years of experience *with intelligent study* be considered an equivalent to years of schooling?

Three grades of workers in forestry. There are three distinct grades of workers in the forest service. There is the forest guard, usually an assistant to the forest ranger, who needs only a practical knowledge of lumbering and



PLANTATION OF YOUNG WHITE PINE

some surveying. He is usually some local man, appointed forest guard to help out during the busy season, particularly in the work of fire protection and fire fighting. Above the forest guard and acting as a semi-technical assistant to the professional forester is the forest ranger. This position calls for a high-school education as a background and one year of training in special forestry subjects, such as fire protection, surveying, timber estimating, methods of planting, etc.

But Jim Wilson says his boy wants to be a *first-class*

forester, and more thorough training is necessary for a chief or professional forester. The United States Government Forestry Service states that the comprehensive training necessary to a forester cannot be obtained in less than four years of collegiate work, and that at least two of these four years should be devoted entirely to forestry subjects. Any high-school pupil who plans to enter

FUJI LOOKOUT, CASCADE NATIONAL FOREST, OREGON

forestry service should pay special attention to mathematics, geometry, and trigonometry, to all science subjects, and to English. What clubs among those in your local high schools might be helpful to a future forester? Can you suggest any other such clubs? In order to try out your fitness for and continued interest in forestry, what summer or vacation jobs could you engage in?

Forestry schools. A side light showing the awakening to the importance of this profession is seen in the growth in the number of forestry schools. From one school in 1900 the number has grown to 25 granting degrees in forestry, while 60 others include forestry in their curricula.

Advantages and disadvantages. Aside from the regular office work, forestry is an outdoor job. There is no more useful or beautiful work. There is an unlimited opportunity to study nature. In the national or the state forests the forester has permanency of employment under

FIRE FIGHTING

One of the meanest jobs in the world is fighting fire, but when a fire is discovered in the national forests it is fought by forest officers until extinguished. Fire lines cleared of brush and débris are usually used to check the spread of fires running along the ground

government service. There is the satisfaction which comes from giving valuable service to one's fellow men.

However, as a Boy Scouts' pamphlet on the subject tersely puts it, "Forestry is no picnic." There are frequent occasions when the forester must spend long periods of time living in the woods, whatever the weather or lack of conveniences. At times hard physical labor is necessary. He must always bear the responsibility of guarding and protecting his trees from that arch enemy, fire. Because of the shifting of headquarters from time

FOREST OFFICER SCALING TIMBER

Mathematical skill and ability to estimate are important to the forester. Accurate records of all measurements must be kept. (Courtesy of the United States Forest Service)

to time it is difficult for young foresters to enjoy much home life. Even in the higher positions the forester will be obliged to spend much of his time in the woods.

Demand for workers. You would not want Jim Wilson to send his boy off to college for four years, probably at

UPPER AND LOWER BIG CREEK LAKES, BITTEROOT NATIONAL FOREST, MONTANA

The work of a forester often takes him to scenes of majestic beauty

a sacrifice to himself and the rest of his family, only to have the boy find out when he had completed his work that there were no openings for him. The United States government employs about four thousand men in its forestry work. However, the different states, the railroads, and great lumber companies, water companies, and paper companies are coming more and more to provide similar protection to their vast forest districts. Since they own about four times as much timber as the govern-

ment, their employees should far outnumber those of the government, and the number should increase.

Salary. It should be clearly understood that few men grow rich as foresters. They are provided with a comfortable living, salaries ranging up to $3800. Unusually able men draw from $4000 to $5400, and with private companies even larger salaries. The forest ranger begins with a salary of $2000, which increases up to $3200.

Many of the state universities and state colleges of agriculture offer courses leading to a degree in forestry. Jim Wilson's son might write to the one nearest his home. It might be wise to write to several. A letter addressed to The Forester, United States Department of Agriculture, Washington, D.C., will bring a list of those schools with courses in forest-range management, a list of institutions offering courses leading to a degree in forestry, an excellent pamphlet on *Forestry as a Profession*, and an interesting one on *The Work of the United States Forest Service.*

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CHAPTER VII

MINING

SEVENTY-FIVE MINERS TRAPPED IN WEST VIRGINIA; TERRIFIC BLAST KILLS TWO TIPPLE WORKERS

FAIRMONT, W. Va., April 30. — Seventy-five miners were entombed in the New England Fuel and Transportation Company's mine at Everettville, late today, when a tremendous explosion wrecked the main entry and the tipple.

The force of the blast was so great that two men working on the tipple were killed and fifteen others injured. One miner escaped from the workings alive.

Because of the Saturday half-holiday only about a hundred of the normal force of four hundred miners reported for work this morning. Early in the afternoon some of these came to the surface. They estimated that about seventy-five were trapped in the tunnels behind the spot where the blast occurred.

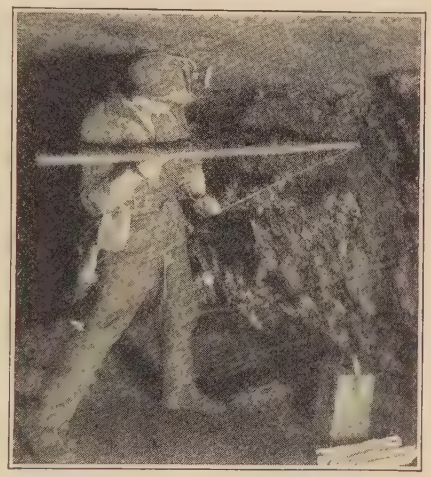
Is such a newspaper report familiar?

While ventilating fans, electric lights, air drills, power hoists, and the use of explosives have lessened the dangers in a miner's work, there are enough left to make a life-insurance company charge heavy premiums for insuring a miner's life. There is still danger from gas, from caving in, from fires, from an onrush of water.

Mining an important occupation. Mining is an important industry, employing some six million people in the world. This number is in addition to the millions of men and women who work in the manufacture of mining products: iron, steel, copper, coke, chemicals, etc. Ordinarily the word "miner" is taken to mean a coal miner;

and when you consider that well over half of the six million mine employees are coal miners, you can see a reason for this. But there are other mine products: petroleum, gas, salt, sulphur, as well as copper, lead, aluminum, silver, gold, and iron. Is the working of stone quarries, clay pits, and gold placers classed with mining?

Exceptional men needed. List thoughtfully the daily comforts you would be deprived of if there were no mine products. A miner renders important service. Our civilization and progress are largely dependent on metals and other mineral products. You have just seen that vast numbers of men and women are employed in getting these minerals from the earth, and that in so doing their lives are filled with danger. Men of high ideals and exceptional intelligence are needed to make this occupation one of fewer hardships and less danger. That person who can find a way to extract metals from the earth scientifically and safely will render a great service to humanity.



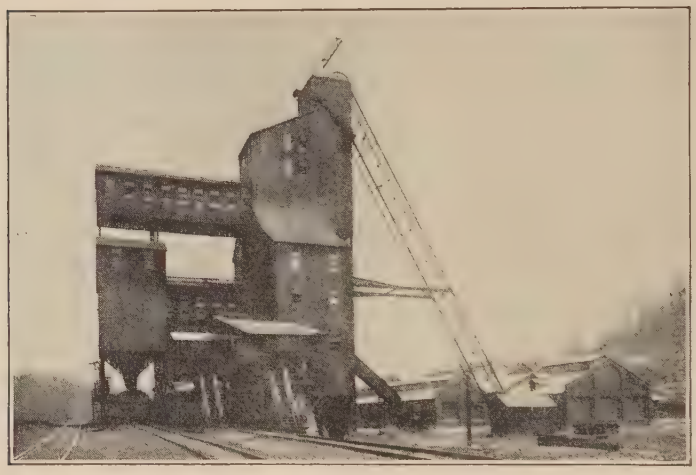
SHOT-FIRER

Tamping hole in face of room. Note self-rescuer on hip at belt

How a mine is developed. The interesting figure of the prospector who stumbled on rich veins of copper or gold is rapidly disappearing. Nowadays big exploration or developing companies send out squads of men armed with

scientific means for prospecting. Very occasionally we hear of a lone prospector who has found a rich vein, but the majority of the few remaining prospectors spend long years of hardship and heartbreaking disappointment in vain.

Nowadays the mining company employs a consulting engineer to advise it whether or not a discovered vein is

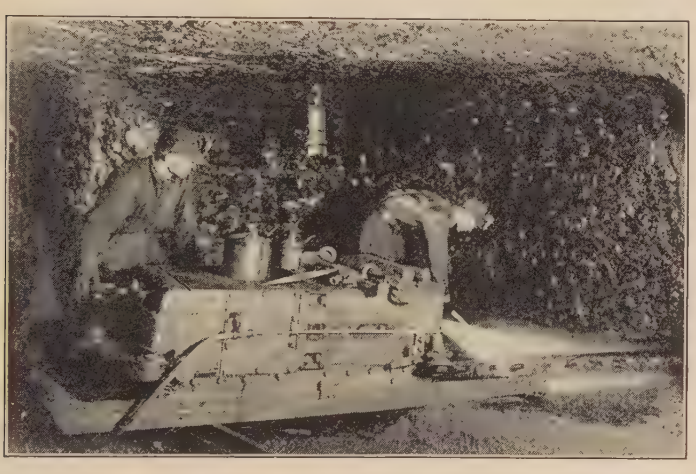


TIPPLE, PENNSYLVANIA MINE

worth the cost of mining it and, if such is the case, to outline a scheme for its development. There are two qualifications such a man must have: a thorough knowledge of the work (this usually entails at least ten years of experience) and absolute honesty. There is too much at stake, too much expense to be incurred, to run any risk in the beginning. Under the consulting engineer is the superintendent, or field manager, whose chief business it is to get the work done quickly and cheaply. The foreman and the shift boss have direct charge of the working squads.

Then comes the working of the mine. The workers in this part of the business include the superintendents of the various departments, mining, mechanical, chemical engineers, and all their subordinates.

In a big mining enterprise there must be an organization resembling that of any business: an office staff, a



METHOD OF APPLYING WATER TO CUTTER BAR TO REDUCE COAL DUST RAISED INTO THE AIR DURING OPERATION OF UNDERCUTTING IN COAL SEAM

producing force (the vast majority of employees work with pick and shovel), an operating staff, and a sales department. This last group faces strong competition in the growing popularity of the use of oil and electricity.

Too many miners. Trained men are needed to improve operations in the mines, but what about the demand for the ordinary mine laborers? Today the average miner can count on working only two thirds of the time. One reason for this is that coal deteriorates above the ground, so that comparatively little is mined during the summer months. Think out a second reason for yourself. There

are well over a million men and, you may be surprised to learn, nearly two thousand women employed in the mines of the United States. These miners work on the average of eight months out of every twelve. Can you suggest a way that this average can be raised to ten or eleven months?

A TYPICAL MINER

Some disadvantages of being a miner. Although a company miner gets a fair living wage when he is working, his work is irregular. Sometimes mines are closed for weeks. During a strike they have been closed for many months. Usually these mines are in isolated places, so the men are not able to get "fill in" work while the mines are closed. Living conditions for a miner's family are not always pleasant. Since the supplies of ore are expected to become exhausted sooner or later, only temporary houses are built; whole mining towns consist of hastily constructed buildings, frequently in desolate spots. Schools are often poor. The work is hard; and while the miner's hours are such that he may spend ample time in the open air, at the end of his working day he usually wants only rest and sleep. Chances for advancement are few for the untrained man. A boy usually starts in picking slate from the mined coal. As he gets older and stronger he

becomes a helper; if he is a good worker he is made a regular miner. Very occasionally he is made a boss, and in rare instances he may become a coal salesman. As a rule, however, he remains a miner until his strength or health declines; then he descends the scale by which he rose. Many old, worn-out miners are picking slate from

MINING CAMP IN PENNSYLVANIA

coal along with the young boys and receiving the same wages. This should suggest to you the necessity of saving your money in good times if you should decide to be a miner.

Training and education. Unless a boy interested in mining is content to remain at the hardest, unskilled labor he must have training in a good technical school. As a rule these schools require the completion of a four-year high-school course. This course should be the scientific one, with physics, chemistry, geology, etc. Special attention, too, should be paid to mathematics. But even trained men must be willing to live in lonely

mining places and to work hard. The best of engineers are obliged to do manual labor at times.

Problems. Find out whether steel or concrete in bridge work is the more enduring. How do the costs compare? In what respect is a fine farm more desirable than a mining property? Find out what wages are paid to miners in your community or state. Is your state doing anything to regulate mining? Why are there so many strikes in coal-mining?

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CHAPTER VIII

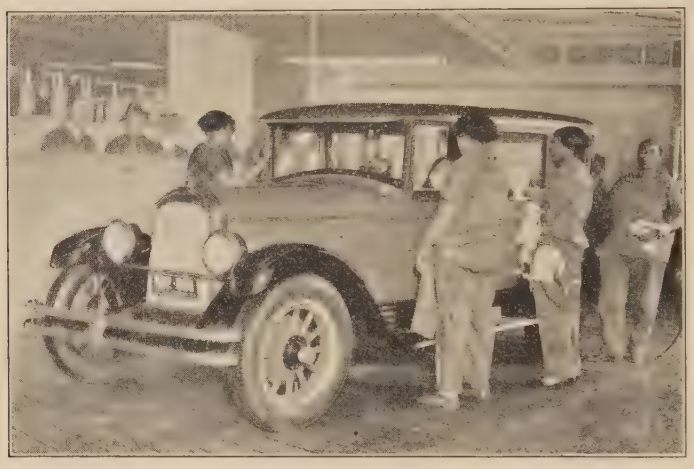
AUTOMOBILE SERVICE

A garage that is different. Can you imagine a garage where an attendant *in a white coat* meets you at the door, takes you into a spotless room with green ferns at its wide window, questions you intelligently about your car troubles, and listens attentively to your replies? There is such a place, a small garage that grew to its present proportions and a $1,750,000 business over a brief space of years. It has attained its place through excellent, moderately priced service and its motto of "Courtesy plus."

One day Mr. Ross drove up in front of this garage and came in hurriedly. He got immediate attention; no one ever stands round waiting to be seen in that garage. Ignition trouble. The attendant listened carefully to his story. Then a man ran the car into a chalked-off stall of the shop, and the ignition expert took charge of it. The attendant noticed the car-owner looking at his watch repeatedly. Upon learning that he had an urgent business engagement he made inquiries and found that the car would not be ready for at least an hour. He then offered Mr. Ross the use of another car, and the offer was gratefully accepted. When Mr. Ross came out from his appointment two hours later he found his own car at the curb. He found, too, that there was no extra charge for the use of the company's car and that his repair bill

was a moderate one. Should you expect him to be an enthusiastic and loyal customer at that garage?

When a man goes there for his car an attendant drives it out for him, carefully wipes any grime or grease from the steering wheel, checks up the tires, and sees that the



MOTOR LAUNDRY

More service for the motorist. Here is the automobile "laundry," a novel system of washing and polishing cars. The automobiles enter the "laundry" and are placed on a revolving platform which carries them slowly past fast-working crews. Each crew has a certain task to perform; and fifteen minutes later the cars are turned out spick and span. Many of the workers in this "laundry" are women. Between three hundred and fifty and four hundred automobiles are cleaned daily. Here a crew of women workers is giving the car its final polish

radiator is filled. He will accept no tips. Courtesy plus! If a car is driven in for repairs which the service man thinks unnecessary or of doubtful value, the owner is told frankly. Other jobs, such as tightening up wheels, adjusting brakes to save an expensive job later, and the like, are often advised. The customer leaves with a sense of gratitude and appreciation. When a used car is sold,

the buyer is given its entire history, the name of its past owner, its mileage, the reason it was turned in, and exactly what repairs the company has made. Two weeks later the owner receives a letter asking if he is satisfied with his purchase and volunteering to be of service.

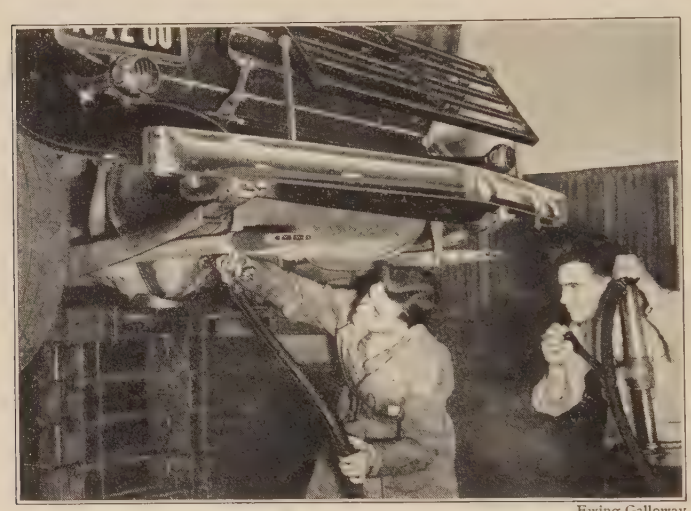
Once Mr. Hess bought a used car from this shop and set off with camping outfit for a two weeks' trip. Twenty-five miles out the crank shaft broke. Now a crank shaft is an uncertain thing. It may break in a new car; it may last for ten years. It wasn't the garage company's fault that it broke. Mr. Hess realized this when he went to telephone for the service car to haul him in. The company knew the man's plans and knew that his funds were low and that the repairs would be expensive. Mr. Hess said ruefully that his family would just have to give up the trip. But they didn't. The company sent out a service truck for the car, put on an extra crew of men who worked most of the night, and the next morning at eight o'clock the car stood at the Hesses' door ready for the trip. There was no bill. Would that family be enthusiastic friends of that garage company?

It costs the company $10,000 a year for such extra service, this courtesy-plus idea. However, it turns probably a thousand indifferent customers into as many enthusiastic salesmen, and that $10,000 buys $75,000 worth of good advertising. It pays to advertise.

A garage holds an important place. However, this garage is an exceptional one. The vast majority are not on a basis so well or so pleasantly established. In many of them the owner is the sole worker or has only one helper. Garage work means much hard work and dirty work. It requires mechanical knowledge and skill. With the constant increase in motor cars it is becoming more and

more important. High schools, colleges, and universities are offering courses in automobile engineering and repair service.

In 1936 the United States and Canada produced over 80 per cent of the entire world's output in passenger cars, trucks, and motor busses. The United States alone



Ewing Galloway

WHEN A CAR IS ELEVATED BY A HYDRAULIC LIFT, PUMPING GREASE INTO ITS DIFFERENTIAL BECOMES A SIMPLE MATTER

owns and operates over 71 per cent of the automobiles of the world, — close to 28,000,000 cars, of which about 25,000,000 are passenger cars, enough to take all her people out for a ride at one time. It needs a vast number of service stations to keep all these cars — the trucks, tractors, and other motor vehicles — in condition.

Bring in some information. Each of you in this class knows of some particular garage where your father buys his gasoline and gets his car looked over, or you may know a man who works in one. Divide your class into

groups, find out some definite things, and then pool all your information to make up an interesting chapter on automobile service. Make a list of things a man or woman interested in establishing a garage would want to know. Go over the list very carefully to see that everything is included; then hunt out your different garages (the more there are, the more value there will be for your chapter) and get your information.

Use your notebook to be sure of keeping your facts. Keep your eyes and ears open for any reference to automobile service. Frequently there are interesting items in the newspapers, especially in Sunday editions. If you can find any of the books or periodicals listed below in the library, look through them. Consult the Readers' Guide for magazine references. Find out what the garage-owner reads. How does he keep up to date? Find out, step by step, how a boy advances in a garage and whether or not he should have a high-school education if he expects some day to own his own garage. Consult the outline for studying an occupation given on page 379.

Income. Remember there are three sources of income in a garage: (1) sale of cars, (2) sale of parts, (3) repair services. It is difficult to make a general statement about the amount of income from a garage and service station. A number of the better companies have fixed charges for repairs, and the costs are posted. The income depends, of course, upon the location, the quality of service done, and the number of customers. Do you remember what Ralph Waldo Emerson says: "If a man can write a better book, preach a better sermon, or make a better mouse trap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door."

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CHAPTER IX

THE BUILDING TRADES

Demand for buildings constant. How many new buildings have been erected in your community within the twelve months just passed? If a building is now being erected near your home, visit it and observe the work being done. Find out, if you can, what different trades are represented in the corps of workers. Find out from your teacher or principal whether your community is equipped with sufficient school buildings. In many large cities, such as New York and Detroit, some children are able to attend school only half time on account of a scarcity of school buildings. During the World War building operations were practically stopped in most of the important countries. Since that time people have been trying to catch up in building houses enough to supply the need. Companies have been organized which have employed large numbers of men and have built whole villages of houses. Not long ago a real-estate and building company in a large city sold a thousand new houses in one day. The unfortunate thing about it was that the day was Sunday, a day when business should have been suspended.

There are three great physical needs of civilized man: *food*, *clothing*, and *shelter*. People not living in the hot zone find *shelter* absolutely necessary. In the earliest ages of man of which we have any knowledge people lived in caves and in sheltered places between and under rocks. Later they dug caves and built skin tents and log

and stone huts, and from that stage of advancement they have come to the period of beautiful, comfortable, and durable homes. From a period when any convenience other than roofs and walls was unknown we have advanced until now the modern house is so complete that

THE STRUCTURAL STEEL WORKER

The "cowboy of the skies" prepares the way for men of many other building trades

the snapping of a switch or the pressing of a button is sufficient to start the day with every convenience and comfort.

Many types of workers needed. It would be interesting to get acquainted with all the different people and activities involved in putting up a building. Beginning with excavating for the foundation and ending with the last touch of painter or decorator, an astounding number of people have a part in the process. Commonly a contrac-

tor, after studying the architect's plans, lets a subcontract for excavating for the foundation. Then come contracts for sand, lime and gravel, steel and iron, brick, stone, tin and sheet metal, lumber, doors and windows, hardware, electrical fixtures, and so on.

Add to those connected with the production and handling of all these materials the different workmen who actually build the house, and you have a fairly good idea of the great importance of building as a business. From the following pages you may learn something of the chief branches of the building trades and perhaps decide whether any of them appeal to you as desirable for your life work. Among them are carpenters, masons, plumbers, electricians, plasterers, painters, paper hangers, and sheet-metal workers. In addition, but classed with the professions, are architects, interior decorators, and landscape gardeners.

1. The Carpenter

The carpenter works with wood. Most people are interested in doing things with this material, if it is nothing more than whittling. The first manual courses in our schools were woodworking courses. In these many boys, even those entering the professions, learn to use their hands in making interesting and useful things. Many a professional or business man spends some of his spare time in carpentering about his house and in his shop. Here are a few things that the carpenter does:

1. Makes plans for buildings.
2. Calculates exactly how much lumber will be required.
3. Calculates the cost of lumber at current prices.
4. Selects the proper lumber for each piece of work.

5. Builds framework.

6. Builds scaffolding.

Add to these as many items as you can. Interview a good carpenter. This can be done by an individual or by a committee.

Advantages and disadvantages. The carpenter usually works in the open; he gets plenty of physical exercise; his work requires thinking as well as handwork. The work is strictly constructive and useful. It is an honorable occupation. It requires little capital. There is a good chance for promotion for the boy who is willing to work, study, and follow instructions. The disadvantages of the work are:

1. A slack season during winter, especially in temperate and cold climates.

2. Competition of poorly trained workers who are willing to work for small wages.

3. Willingness of many people to accept poor work for a low price.

4. Heavy work. In framing buildings the work is specially strenuous.

5. Moving from job to job. Although this furnishes change and relieves monotony, many persons prefer to work at one place for long periods.

Training. The carpenter may do fairly well with no education beyond the grades; however, you have learned from your study of his duties that he needs education if he expects to advance in his trade. To be sure, some carpenters are not required to estimate lumber and calculate costs; they are not asked to make careful mathematical calculations in fitting materials into difficult places; they do just what they are told, and allow others to do their thinking. But this is not the type we are discussing; we are thinking of the man who can keep

advancing from one type of work to a more difficult type, the man who has training enough to enable him to advance to the contractor class. The contractor is a man who has studied the building situation from every angle. He has studied building materials and their relative desirability for the different types of buildings. He is able to plan buildings himself or to follow successfully the plans of architects, to calculate costs, and to see that everything is done exactly according to specifications. He must know just when electric wiring and plumbing should be installed and where; he must know how to save time for all the different types of workers and yet have each one on the job at just the proper time. He should know the law of contracts and the local laws governing building permits. This type of carpenter should have at least a high-school education. He should be especially interested in science, mathematics, and art. Mechanical drawing is a very important subject in his course. He should take all the courses given in woodworking and should take courses in general metal and concrete work.

CARPENTER AT WORK

The carpenter's work requires manual skill and much of it is done amid pleasant surroundings

After graduating from high school he should take a course in a trade school or become an apprentice with a good builder. If he enters the trade school his course will be from six months to one year in length. If he attaches himself to a builder as an apprentice he is likely to remain in that position for three years. With this education he should be able to advance rapidly and, if he takes his work seriously, to be in business for himself after a few years in general work.

Personal qualifications. The carpenter should be a man of good health and sturdy physique. He must have steady nerves and be able to work in high and dangerous places. He should be a lover of fine work and should have good taste. His work should stand for a long time; hence he must be a man unwilling to do a cheap job or to use poor materials. Genuine honesty is important and essential in the carpenter.

Income and social status. The carpenter in many places is a member of a union and receives a little more than a dollar an hour for a forty-four-hour week. In many smaller places he is not a member of a union and usually works for considerably less; but, on the other hand, his living expenses here are less. He is considered a person of real worth in the community and has desirable associates. Many a former carpenter has become wealthy after entering the contracting business.

2. The Cabinetmaker

A carpenter who is an artist in the making of fine furniture and indoor cupboards as well as paneling, fancy stairways, and the like is known as a cabinetmaker. He is just a grade beyond the worker known as a joiner, whose work is to fit windows and doors, paneling, etc.

Much of the work formerly done by the cabinetmaker is now done by machinery, but a few skilled cabinetmakers are still needed. Certain parts of machine-made furniture must be fitted by a cabinetmaker; and many persons of means desire to have work (largely handwork) done by the most skilled workmen. Musical instruments, such as pianos and phonographs, are cased in wood shaped by expert cabinetmakers.

The cabinetmaker is a carpenter who has found his work so supremely satisfying as to make it an end in itself. He is working for art instead of the weekly wage. Slipshod work pains him. The modern tendency to do everything possible by machinery and to do things in a hurry has spoiled many a fine carpenter. The story is told of a fine workman from Austria who came to a large American city to live. For a time he tried to obtain the kind of work he was accustomed to do. The result was that he was idle a good deal of the time and consequently unable to make a good living. He hesitated to give up the fine type of work he had made his life work, but finally yielded to the trend of the times and the press of circumstances. Some time later he was sought out by a wealthy man who had heard of his skill, and employed at some very fine work in a modern mansion. He tried the work, but found that the type of work to which he had surrendered had unfitted him for the artistic work. He tried hard to overcome the handicap, but finally gave up the job because he was unable to do satisfactory work. This case is probably only one among many which emphasize the fact that if a person desires to be an artist he must do artistic work continually.

Offers opportunity for artistic expression. Cabinetmaking, fine furniture work, offers a calling that is worth while to young men who like to do only the finest work.

It offers an opportunity for invention and artistic expression that do not appear in a good many trades. At the present time there is much interest in antique furniture. Although much furniture bought now for real "antiques" is being manufactured and sold under misrepresentation, there is a place for the young man who is able to design and make the modern furniture patterned after the genuinely ancient work. Two names that have come down to us closely tied up with fine work are those of Chippendale and Sheraton, early builders of the best in cabinetwork and furniture. Pattern-making is fine carpentry closely allied to cabinetmaking. The pattern maker makes in wood the exact duplicate of what later will be cast in iron or steel.

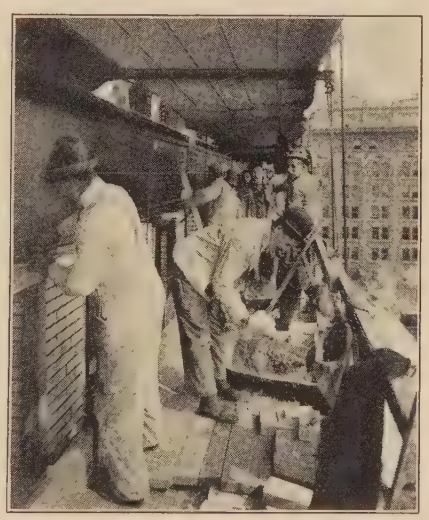
The income of the cabinetmaker and the pattern maker is slightly higher than that of ordinary carpenters.

3. The Mason

Masonry since ancient times an important trade; work of mason. Before the carpenter can put up a building he must have a foundation laid by a mason or a bricklayer. It is very fitting that the foundation of a building should be laid by a man in the oldest and one of the most honored trades; in fact, it might be called the foundation trade. All ancient houses of wood have disappeared, but many structures of stone and brick are still standing after thousands of years. It was the mason who built the pyramids, the ancient tombs, the Roman roads and aqueducts, the buildings in various parts of Asia that are being brought to light after having been buried for centuries by sand and dust.

The foundation of a building is made of stone, brick, or concrete. The concrete is usually poured into forms

made especially for the purpose, but in some cases the foundation is built of cement blocks made in a factory. Besides foundations, the mason builds fences, drives, walks, chimneys, fireplaces, fountains, etc. If the house is of brick or stone or concrete he does all the work of construction, leaving only interior and exterior finishing for the carpenters and other workmen. Some buildings, such as our great skyscrapers, have steel framework which is cased with concrete, brick, or stone.



MASON AT WORK ON SKYSCRAPER

Bricklayers follow the steel workers on our modern buildings

Besides the work of laying foundations and casing buildings, the mason does very fine work in interiors and on outside trimmings that require artistic work. Besides knowing how to make a wall that will stand indefinitely and seeing that it is plumb and level, he must be able to fashion delicate curves and to arrange materials in artistic color schemes and with perfect symmetry. He must be able to build chimneys and fireplaces which will not only be attractive to the eye but will carry off the smoke and gas.

Qualifications and training. When we see what is expected of him we realize that the mason must be well trained. Usually he learns his trade as an apprentice over

a period of about three years. He begins with the simplest duties and gradually works up to the more and more important phases of the craft. He must know how to mix mortar that will last for centuries; he must know the kind of base on which any wall should be placed; he must know how to lay bricks evenly and how to tie them together so that the wall will be firm and solid. He will begin his work of brick or stone laying on rough walls which must be solid but need not be artistic. As he becomes better acquainted with the craft he will be given more and more difficult work to do, the highest moment in his work as an apprentice being when he is given a small bit of some fine finishing to do. He must be alert and always studying the work that others above him are doing. He should not be afraid to ask questions, but should make it a point to remember the answer to every question he asks. If he is not sure he can remember any bit of information, he should write it in a notebook which he always has in his pocket for that purpose.

Needed training. The boy who does not care to spend the time required for apprenticeship may attend a trade school where, under expert instructors, he learns to do the work. Here he will build actual walls and at the same time be taught the theory of the trade. Before entering trade school or his apprenticeship he should have at least a ninth-grade education, and he will do far better if he has graduated from a good high school. If possible this high school should be a technical high school. However, if this is not possible he should have elected in his high-school course as much mechanical drawing, mathematics, and shop work as he could. His work in science, physics, chemistry, health, etc. will be very helpful to him. A course in business arithmetic will always be worth while, for he will need to know how to keep his own personal

accounts, and, what is more important, he will need to know business if he is to succeed in getting into business for himself.

Some advantages. Like other building trades, masonry is a seasonal occupation, there being in temperate climates about three months in the winter when it is impossible to build outside masonry successfully on account of the danger of the freezing of mortar. Some of the work takes the mason into dirty places; but in general the work is not unhealthful, and it has many things to commend it. It is work that is absolutely necessary for the comfort and convenience of people. The pay is good, somewhat higher than that in many of the building trades. The work is not ordinarily very heavy, as the mason usually has helpers to do the heavy work. Being an important building trade, masonry is considered generally in a favorable light by those who like to associate with useful and substantial citizens.

Advancement depends on the individual workman. Mechanical skill, exactness, honesty, a desire to have his work last a long time, are some of the qualities that will make for success.

4. The Plasterer

The work of the plasterer. About what percentage of the labor cost of a building should be paid to the plasterer? Ask this question of some experienced builder. The answer will indicate something of the comparative number of persons employed in the trade; the fact that the number of plasterers is comparatively small does not indicate that the work is not of real importance. The plasterer is the man who makes the inside of a building ready for the decorator. He makes the groundwork for the real inside beauty of the building.

Formerly when lumber was plentiful not much plaster was used. High wainscoting and beamed ceilings were in style. Hence there was little demand for the services of the plasterer. Now, however, the importance of the trade has grown until it is equally as important as other phases of the building trades. Much of the plastering, especially in our cities, is done by large companies, who employ men for all grades of the work, from that of putting on the scratch coat (a rough coat very rich in plaster and poor in sand) through the first coat, the brown coat, and finally the last coat, which is called the white coat or the sand coat, depending on whether it is white and smooth or rough and grainy.

Another change in plastering is in the type of lathing used for its foundation. Formerly this consisted of small strips of wood which were nailed to the studding. Now it is commonly made of steel — always, in fireproof buildings. Lathing is a trade in itself, and many large contracting firms do nothing but this.

Qualifications and training. To be a successful plasterer a boy should be strong and willing to work. He should have a mechanical turn of mind and enjoy doing a correct piece of work. He should be able to know instinctively when he sees an artistic job. Although he may enter the trade from the grade school, he will do much better to graduate from high school first. Then he may begin as an apprentice or may enter a trade school. If he begins as an apprentice, he will serve an apprenticeship for about three years. He will begin on the roughest work connected with putting on the first coat, gradually doing more careful work until he is allowed to do plain finishing. After a long training at this, if he is skillful enough he will be allowed to try some of the simpler concave and convex surfaces. When he has proved his skill at these he will

be promoted to more difficult jobs, finally being advanced, if he shows unusual skill, to the shop or to the position of laboratory ornamental man or *caster*.

Advantages outweigh disadvantages. Plastering is not quite so seasonal as some of the building trades. Except in the case of stucco work it is usually an inside job, and many buildings are made ready for the plasterer just about the beginning of cold weather. The wages are good — on the average about 20 per cent higher than those of the carpenter. The trade is well protected by the union. There is some slight danger of injury to the eyes, since much of the work is on ceilings, and the material contains lime. The dust connected with tearing down old plaster is not at all pleasant. Aside from these minor disadvantages, the trade is not undesirable. Very little capital is required for learning it and little more is required to go into business for oneself in a small way.

5. The Painter and Paper Hanger

Finishing jobs. Have you ever visited a house just before and just after it was decorated? If so you have noticed the great change that was made by the skill of the painter and paper hanger. Although the building might stand a long time without his service, it would not be considered a finished home. Art is a necessity in our modern life. The painter and paper hanger contributes largely to this need. Nothing is more restful to a man or woman who has done a hard day's work than home surroundings that are harmonious and in good taste. So a building is not complete until the decorator has done his part; namely, the painting of frame houses outside, and the painting, varnishing, and papering inside. We shall see what this worker must know and do.

Different kinds of paint. It is the work of the painter to cover wood and other surfaces so thoroughly that they will not be affected by the weather. Paint is made from many different ingredients, the most common of which are white lead and linseed oil. The most common outside paint is that which is made by the painter by combining these two with a little drier. Floor paint must be of different composition; and paint for inside walls is commonly known as "flat" paint. The reason for the name is that inside paint is usually a dull white, whereas paint for outside walls, containing more oil in order to withstand the weather, is more oily in appearance.

A HOUSE PAINTER STAINING WOODWORK ON A PARTITION WALL

This work requires patience and skill

After mixing his paint or stirring up the manufactured paint, the painter proceeds to apply the first coat. After the first, or priming, coat has been applied (which is always done when the lumber is new and has not been affected by the weather), all nail holes and other openings are filled with putty. Then the second coat is applied, and frequently the third after the second has dried. Not only must the painter know how to mix his paint and how to spread it evenly on the surfaces, he must also know how to paint in difficult places, under eaves, for example.

A disadvantage of painting is the poison of the white lead. Painters must be very careful to have their hands perfectly clean before eating. Lead lodged under the nails may get into the food and do much harm. Also the lead, which in the powdered form is very fine, may work its way through the skin and harm the painter.

Paper hanging is usually combined with painting. In this work one should have artistic taste in the selection of paper and skill in matching and pasting. The work is less dangerous than some kinds of painting, on account of materials and places of work.

Training needed. It is possible for a person with little education to become a painter and paper hanger. Skill in using the brush can be developed by an illiterate person. But success in the trade does not come to such a person. The painter must mix his paints with brains. The high-school graduate who has studied chemistry, physics, and mathematics as well as art will have a much better chance of success than will the person without this training. Some cities have established schools for the training of decorators.

Advancement for the expert worker. The painter and paper hanger who has some training, who is an expert and thoroughly reliable, may become a contracting decorator and have several jobs in process at the same time. Then his job will be only to see that work is obtained, that men and materials are provided, and that the work is properly done. Frequently a decorator has a store of his own where he keeps paints and wall paper and all the materials and implements needed for the trade.

Advantages and disadvantages of the work. Some pleasant phases of painting are the satisfaction one gets from a clean new job, and the fact that outside painting is

done only in fine weather and that usually inside painting may be done when the weather is bad. The work is not heavy. It requires skill, and the careful painter can be always improving his technique. The man of artistic temperament can find real satisfaction in doing a fine piece of work. The trade is becoming safer as new methods of safeguarding the painter are found.

The work does not last the entire year; and the painter is fortunate if he spends over nine or ten months a year at his trade. He changes his job frequently and thus must move around more than some people desire to. Although much of the work is not hard, a good deal of it is done in dangerous and difficult places.

The interior decorator. The interior decorator has a higher type of work in this field. It requires long training and is classed as a profession. Many women work in this profession, making plans, selecting materials, and being generally responsible for the attractiveness and good taste of the interiors they decorate. The one who attempts this work must be a person of fine educational, artistic, and social training, with a wide knowledge of what is proper and in good taste.

6. The Electrician

Some things we owe the electrician. Have you ever thought of the debt you owe to the men who provide the lighting for your house and the power to run the electric washing-machine, the vacuum cleaner, the electric iron, the toaster, the cooking range, the refrigerator, and the heater for your bathroom? If you were deprived of all these and had to study by candlelight, run a washing-machine by hand, and sweep with an ordinary broom you would probably be much interested in anyone who would promise you a few of these luxuries.

Many boys think they should like to become electricians, but most of them do not know just what it means.

Training necessary. The would-be electrician should be interested in machinery, especially in the intricate parts of a machine, and should be skilled in locating trouble. He must know the theory as well as the practice of electricity, for since electricity is a dangerous force he must know how it will act under various conditions. He must know the state laws governing the installation and insulation of electric wiring. In both his junior and senior high-school courses he should take all the mechanical-drawing, machine, and electrical courses offered. He will find that physics and mathematics are absolute necessities. General science contains many things of value to him. While in school he should take advantage of every opportunity to work on practical projects in electricity, such as making motors, wiring door bells, and installing radio sets. Happy is the boy or the man today who understands electricity and can get the highest efficiency out of his radio set.

Some advantages. One of the chief conditions favoring electrical work today is the tremendous increase in the amount of electricity used. Even the farmer away from any electric line has his buildings wired for light and has an electrical plant run by a gasoline engine to furnish his power. The work is mostly inside and is not affected by the weather. There is always repair work to be done. The pay is good, being about the same as that of the carpenter.

Exposed to danger. The electrician is frequently exposed to danger from electric currents. The wires with which he works are usually "dead," of course; that is, the current is shut off. Occasionally, however, the current comes on by accident or the insulation he uses is insuffi-

cient. Then trouble comes. His work is frequently held up by others of the building trades, whose work must come first. Then he is asked to work rapidly in order not to delay the other workmen. Naturally his work on new buildings is seasonal, as is that in most building trades.

Future opportunities. With the increase in the use of electricity the electrical contractor has become a very important person. He contracts for the wiring of a building and furnishes the materials and the men to do the work. On both of these he makes a profit. Very often he sets up a shop of his own, where he keeps not only all the materials needed on his contracts but the many fixtures and appliances needed in a modern dwelling or office. Recently the sale, installation, and repair of radio equipment have added to the interest and profit of his business. The electrician frequently becomes interested in the electrical equipment of automobiles and sets up a shop where he sells and repairs batteries and all automobile electrical equipment. Thus the future of the man trained in electricity is an interesting one and is made doubly so by the new inventions that are continually being added to the already long list of conveniences.

7. The Plumber

Plumber responsible for many comforts in home. Most of us remember a time when a sudden cold spell came and the water pipes froze and burst. Then we called a man who came and fixed them, and after much discomfort the household again ran smoothly. We hadn't thought much about this man until we had trouble; then we were glad to have the benefit of his skill. Probably we remembered then that here was the man who had put into the house the network of pipes which

furnished us with water both hot and cold and with gas, the man who had placed the pipes that carried away all the waste products, put in the hot-water or steam heating plant, and did a number of other things that help to make life comfortable. We probably complained of the bill when it came in, for the plumber receives somewhat higher

PLUMBER AND HELPER INSTALLING BASEMENT WASHTUBS

wages than many men in the building trades, but we soon forgot the cost in the comfort we received from his work.

Education and training. The plumber must know more than how to mend a broken pipe; he must know the fundamental principles of heating and plumbing, he must be able to read blue prints and to follow instructions to the letter, and he must know enough about his work to question any orders that go contrary to established principles. He should have a high-school education in which he has emphasized shop work, drawing, the

sciences (including health), besides some good courses in social science and English. The man who can give the impression that he knows the English language and who knows how to get along with people will do much to make the plumber popular with his customers. His training in the trade will be obtained in an apprentice course, or in a school for plumbers where he will get practical experience along with the theory of the work.

Advantages and disadvantages. The plumber can feel that his work is necessary to the comfort of people, that his income will be good, and that there is plenty of chance for advancement. On the other hand, he will have some unpleasant jobs to do, especially in repair work. His work will at times be in places that are neither clean nor healthful. His work in general depends much on the other building trades, but the repair work required is considerable. The plumber can look forward to rapid advancement if he is capable, is a student, and is willing to work. As in decorating, electrical work, and some other building trades, he may look forward to having a contracting business of his own as well as a store for the furnishing of builders' supplies.

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CHAPTER X

DRESSMAKING

Mary Brown wanted a new dress for Easter. Her father gave her fifteen dollars and told her that must buy her spring hat as well. After looking at dresses down town Mary felt despondent. The cheaper ones were of inferior material and apparently carelessly made. Many of them were duplicates, differing from others only in size and color. After hours of fruitless search her mother suggested they go to the section where better dresses were sold. Mary's eyes lighted as the clerk displayed a number of charming frocks. She especially liked a rose-colored one. But her heart sank when her mother inquired the price. Thirty-two dollars and fifty cents! Another, her second choice, was twenty-nine dollars. That settled it. Mrs. Brown thanked the clerk, and reluctantly they turned away.

Downstairs at the silk counter they looked at materials and found the exact duplicate of the material in the rose-colored frock. It was priced at three dollars a yard. At the pattern counter they found a similar pattern. The material plus the pattern and the few trimmings cost eleven dollars. Mrs. Brown, with Mary's eager help, made the dress in less than two days. An interested friend, who was clever in making her own hats, agreed to help make a hat for her using more of the rose silk.

When Mary slipped into the dainty frock and adjusted her hat, her father declared that the fifteen dollars was

the best investment he had ever made; and said that her costume looked like a hundred dollars. Mary knew it looked like fifty dollars, for she had been pricing hats and dresses down town. The next morning she came downstairs looking thoughtful and announced to the family that she had finally decided on a definite occupation — dressmaking.

Education needed. After talking with her home-room teacher she went with her mother to see a number of dressmakers, two dressmaking establishments, and one factory. All but one of the persons she interviewed advised her to stay in school through high school. That one told her she could get along with an eighth-grade education, but that a high-school education would be valuable to her in many ways. She found that she must pay special attention to arithmetic, that a knowledge of bookkeeping would be helpful, that English was important, and that art would be helpful to her in drafting designs of costumes as well as in giving her a knowledge of colors and their combinations.

She was told that her dressmaking course in high school would be useful to her, but that she would be wise to take a course in one of the trade schools, as this would eliminate all necessity for her apprenticeship and hasten her advancement in the occupation.

These trade schools usually offer a two-year course in cutting and fitting, in designing, in all kinds of stitching, etc. The making of every kind of garment is studied, whereas in a single establishment the making of garments of one sort — evening gowns, afternoon dresses, blouses, or suits and coats — may be a specialty. Sometimes in such establishments an apprentice is kept at one special task and is not given an opportunity to know all the branches of the trade.

TWO CORNERS OF A DRESSMAKING DEPARTMENT OF A PUBLIC SCHOOL

Work done. One successful dressmaker who owns her own establishment outlined her work in this way. She is business manager as well as designer of costumes. She employs the workers, pays the wages, keeps the accounts, and sees to the payment of all bills and to the upkeep of the establishment. In addition, she meets customers, plans the garments, directs the making of them, inspects the finished work, and sets all prices. She has to know the markets of goods and trimmings and a great deal about their comparative values. She must make a close study of wages and prices because of the strong competition of the big department stores.

In a large dressmaking establishment there are a number of different helpers. The designer, who does the original work of planning, is, of course, the best paid of them all. There are, in addition, one or more blouse drapers, with several assistants — blouse finishers and helpers; a sleeve girl and her helpers; a skirt draper, with a number of finishers and helpers; a coat-maker; a lining or slip maker; an embroiderer; a hemstitcher; etc. Then there is usually a shopper, frequently an apprentice, who does the buying of smaller articles and matches thread, trimmings, etc.

Advantages and disadvantages. While Mrs. Brown was talking to the owner of one of the smaller establishments, Mary slipped over to one of the three helpers and asked her if she thought a girl would enjoy dressmaking as her permanent occupation. The woman straightened her bent back: "Well," she said, "if she has a lot of patience and can endure to sit all day long at tedious little jobs of finishing a dress, she might. I get pretty tired of it sometimes. Of course, it is rather fun making up a beautiful dress and having a hand in helping a woman to look her best. But then some of the women are unreasonable

and impossible to please. If they want a dress finished by seven o'clock Monday night, they expect you to sit up nights and sew all day Sunday if necessary to get the thing finished. Another thing, at least 90 per cent of the women wait until spring has arrived to plan their spring and summer clothes. Then they all want things

A CLASS IN COSTUME DESIGN

done at once. It is the same rush season in the fall — probably not quite so bad, but bad enough. During the busy season it is mighty hard to get away or get even a half day off to do anything for yourself, but there is always a month or two when you can expect to be laid off. One thing, though, so many jobs nowadays require a lot of education and training. Dressmaking doesn't."

"What about the wages?" asked Mary, who had listened earnestly.

"Well, if you take the regular two-year course at the trade school, you start in at about the same salary you would get in office work. A designer gets good money. Some highly trained designers get more in one month than I could make in a year. A lot of them design theatrical costumes, but that doesn't happen often. Ordinary dressmakers like me make just a fair living with our needles."

Personal qualifications. When Mary joined her mother she heard the owner of the establishment telling the qualities she sought in her helpers. "If only they are deft in putting things together, I am grateful," she was saying. "And when I get one who is light in her touch, neat, and accurate, I rejoice. I had to give up one girl who loved to sew and really had an eye for style, but her hands were always moist, and she just could not handle delicate fabrics without spoiling them. Another quality I want is the ability to work quickly as well as neatly. Cheerfulness means a lot, too. When women must sit sewing all day long a cheery, friendly spirit is a great help. Work goes better and faster when people are contented."

The field of service. Mary discovered that sewing covers a wide field. The United States census divides the workers in the sewing trades into four classes:

1. Dressmakers and seamstresses.
2. Sewing-machine operators, whose work is more or less monotonous because of its sameness.
3. Millinery and millinery dealers.
4. Tailors.

She found that these sewing trades furnished occupations for a large percentage of working women. In large cities there are more women factory sewers, but in the country at large there is a larger percentage of dress-

makers. She learned that there are different types of work done in dressmaking:

1. General dressmaking.
2. Alteration work in department stores and ready-to-wear shops.
3. General sewing in the homes of customers or in one's own home.
4. Schools where customers make their own things under the direction and with the help of trained women.

The sewing trades are not overcrowded. Many "extras" are needed during rush seasons both in alteration work and in general dressmaking.

Some things to find out. Find out the wages of seamstresses in your locality. If any establishment has a set price for a certain type of dress, find out what it is. Do your mother and the majority of her friends buy their clothes ready-made or do they have them made to order? If ready-made, find out whether they prefer the large department store to the smaller shop. Find out why.

Ask your father what advantage the tailor-made suit has over the ready-made one. Find out the comparative difference in price, granted the materials are about the same. If you can, get an average of how many men out of twelve in your community have their suits made to order. It will be interesting to have a committee make a study of the tailoring trade following the outline on page 379.

REFERENCES

For references on dressmaking see end of Chapter XI.

CHAPTER XI

MILLINERY

Qualifications. To succeed as a milliner a girl must have a natural aptitude for placing a bow or giving a twist to a piece of chiffon to give the best effect. Usually in high-school millinery courses only those girls who have this gift are encouraged to take up millinery as a definite occupation. There are other desirable qualifications such as initiative, promptness, alertness, etc.

Work done. Millinery is an art as well as a trade. The trimmer, who plans the hat, must have creative ability and be capable of seeing in her imagination the hat as it will look when complete. She is comparatively well paid. But to every designer there are five, six, and seven makers. These makers and apprentices fashion a designated shape from buckram or wire and cover it with some sort of material — straw, velvet, chiffon, etc. Then, under the direction of the designer, they sew the trimming on the hat. Besides these two types of workers, there is the copyist, whose business it is to reproduce exact likenesses of various hats. She is both a maker and a trimmer.

Education needed. High-school graduates are preferred in hat shops because of their educational training and because usually they can meet people with more ease than persons who lack their experience. In this trade as well as in almost any other the ability to speak good English is an important item. High-school courses in millinery are helpful; and public trade schools offer courses that make apprenticeship unnecessary.

HAT-MAKING

Many girls develop a taste for hat-making in a high-school classroom

SHOWING ITS GOOD POINTS

In a trade school lessons in selling are given along with those in hat-making

Employment irregular. Millinery is probably the most seasonal of occupations. Attempts are made to get out hats every month distinctive in style and material and so to create a constant demand. However, the problem of doing away with ten to twenty weeks, sometimes more, of nonemployment has not been solved. In large department stores the term of employment is usually longer than in small shops, and during the dull millinery seasons the hat saleswomen are given employment in other departments of the store. Unless she is unusually gifted she will find advancement in the millinery field slow. Only those who have been in the business many years and who have unusual ability are able to command the higher salaries.

Make these investigations. At your next opportunity examine an expensive hat. Find out what makes it expensive. Examine a number of hats. Note the difference in workmanship. Does this seem to affect the cost largely? Estimate the amount you would be able to save if you could copy for yourself one of the more expensive hats.

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CHAPTER XII

TRANSPORTATION

Out in the state of Washington Mr. L. H. Duncan has two great orchards of apple trees. Every year he raises thousands of bushels of apples. All his neighbors have orchards of their own, and most of the people living in the neighboring town either have an apple tree or two in their back yards or have friends who give them apples. Yet each spring Mr. Duncan continues to prune and spray his trees and to raise an increasing number of apples. What does he do with all of them? You have guessed it! A railroad runs through that town and makes it possible for him to ship his apples. They go to New York, to Arkansas, to Alaska, to Mexico, to Canada, and all over the continent.

Progress assisted by railroads. A country of extensive territory such as Canada and the United States is indebted to its railroads for much of its progress. Railroads cause increased production in a great many things. Because of them the miner produces more coal; the manufacturer, more goods; the fisherman, more fish; the lumberman, more lumber; the farmer, more animals, fruit, and grain; the dairyman, more butter, cream, and cheese. Railways with horse-drawn cars were first used in England more than three hundred years ago to carry coal. Steam railways are only a little over a hundred years old. Their chief business today is the hauling of goods from place to place. The freight traffic brings a company four times as much money as the passenger traffic.

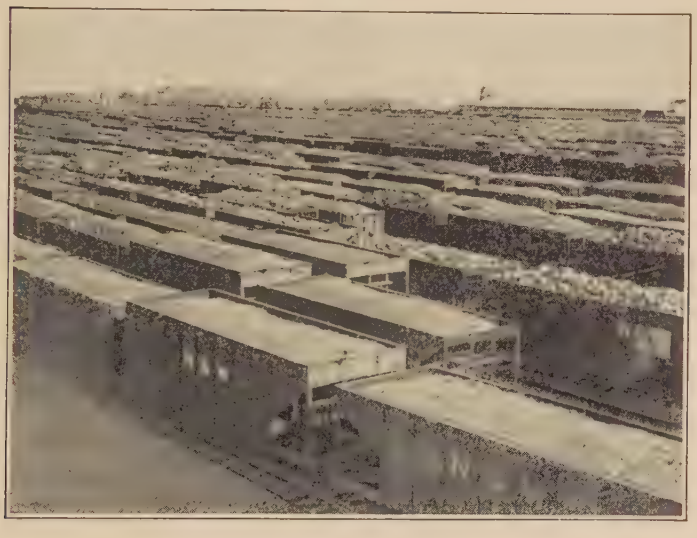
The United States has more railway mileage than any other country. It needs much because of its great distances, its various resources, and its wide variety in climate, which ranges from that of semi-tropical Florida to that of Montana, where the temperature drops to sixty degrees below zero. There are fifty railroads with a mileage of six hundred miles or more; three tracks extend more than ten thousand miles. One of the first tracks in this country was built in 1827 in order to carry granite from the quarries for the building of Bunker Hill Monument. When we look up at that great granite spire, towering into the sky, we feel it fitting that its building marked the birth of this vastly important industry. The railway capitalization in 1922 amounted to more than twenty-two billion dollars!

Would Denver, Colorado, be so big a city without the railway? Would Sallisaw, Oklahoma, be so pleasant a place to live in without it? Exactly what does it mean for a city to have railway service? Does the number of railroads coming to a city affect it greatly? Do you know of a town without any railroad? If so, does the lack of it affect the town greatly?

Why cars are transferred. Watch for the next freight train and see how many different kinds of cars are in it. Why should cars from the Southern Pacific be used on New York Central tracks? Why is it that Baltimore and Ohio cars are found on the Southern Pacific line? It is possible to transfer cars, of course, because all tracks of importance in the United States and Canada, in Great Britain, France, Germany, and many other European countries, are of standard gauge; that is, the tracks are laid the same distance apart, four feet eight and a half inches. The narrow gauge, three to three and a half feet, is used chiefly in mining and lumbering. You ought to

know the principal railroad systems in your country and all the electric and steam lines that serve your town.

Organization of a railway system. In a railroad organization there are first the stockholders (a hundred thousand in the Pennsylvania Railroad Company); then the directors and the president. Under the president is the



COAL CARS

Cars loaded with coal to be sent to different parts of the country

general manager, who is frequently vice president. Then come the general passenger agent, the general freight agent, the engineer maintenance of way, the general train master, and the divisional operator. Vast numbers of men work under these different officials. The electric and steam railroads employ several million persons in the United States. Among the employees are lawyers, civil, mechanical, and electrical engineers, accountants, doctors, traffic experts, traffic solicitors, painters, carpenters,

cooks, machinists, telegraph operators, switchmen, section men, and many others.

Roads must be built and kept in good condition. Engines and cars need constant care and must be manned. With so many different means of transport available, other railroads, electric lines, waterways, highways, and now airways, each company must bend all its energies to secure business. Soliciting traffic is an important part of a company's activity. Accounts of everything, from each ticket sent out and turned in to the purchase of large tracts of land, must be carefully kept. Supplies must be purchased. One company had on its list of things to be purchased eighty thousand items. How should you like the job of purchasing agent? In one year the printing of tickets alone cost one company $40,000, and the bill for printed folders amounted to $50,000.

Accurate planning necessary. When you go through one of the great railway stations and see how smoothly and competently everything is managed, you realize that a great deal of accurate thinking and planning is behind it all. Think of being freight-yard master in a yard of several hundred miles of track and nearly two thousand switches, with from five to eight thousand cars to get out every twenty-four hours!

Aside from the locomotive engineers, the firemen, the conductors, and the trainmen, the jobs in railway service are little different from similar ones in other lines of work. There are mechanics, signalmen, baggage clerks, telephone and telegraph operators, ticket sellers, freight clerks, maintenance men, and many others.

Small labor turnover. Except in construction gangs there are few foreigners, only 17 per cent, among railroad employees, the smallest percentage in any occupation. This is owing to the fact that the companies, in addition

to physical and mental examinations, insist that their workers be able to read and understand English. Once in the service few men desire to leave it. There is less labor turnover in railroad occupations — taking on new employees to replace those leaving — than in any other large group of workers. In a recent year over a hundred manufacturing establishments reported nearly 100 per

STATION YARDS

cent labor turnover, the electric railways 65 per cent, and the steam railways 4 per cent. Four vacancies occur each year for each hundred engineers. Find out and *think out* several reasons why this is true. What about the chances of promotion?

Some advantages of railway service. Railroad jobs are steady and continuous. It is to the advantage of the company, as well as of the employee, that this is true. Not only is labor turnover in itself one of the most expensive features of any industry, but in railroad work four times as many accidents occur to first-year men as

to those older in the service. The trade of railway employees is eagerly sought by different businesses. The manager of a large furniture store declared that they were the safest of all groups to trust with large charge accounts. This was true, he said, not only because of their steady employment but because the habits of punctuality and of temperance demanded in their occupation were an assurance that they would meet their monthly payments.

There is great loyalty among the employees. The different railway brotherhoods, which have members in Canada, the United States, and Mexico, look after their members, encourage savings accounts, give them specific financial and legal advice, and assist them financially with sick-benefit funds and old-age pensions. They conduct also mutual-life and accident insurance companies. The Brotherhood of Coöperative Locomotive Engineers conducts a big bank in Cleveland, Ohio, in which every share of stock is owned either by the organization itself or by individual members.

Two objections to the occupation. Probably the chief drawback in most railroad work is the danger involved. The vast majority of injuries and deaths occur among men who are in their first year of employment, and in a majority of cases they come from carelessness. However, the danger is there. In one year in the United States over 2000 employees were killed and 152,000 were injured. It is only fair to add that in that same year 18,000 people were killed in motor accidents. Some insurance companies will not give insurance to brakemen, conductors, firemen, or engineers. Those that do charge a high rate. The Brotherhood of Locomotive Engineers offers insurance to members between twenty-one and fifty years of age, in amounts from $1500 to $6000, the amount depending on the age of the applicant. Assess-

ments of not less than fifty cents per $1500 is made on the members only in the event of the death or disability of one of the policy holders.

Another objection to the service is the fact that promotion is based on seniority; that is, on length of time in the service rather than on merit. A very able man may

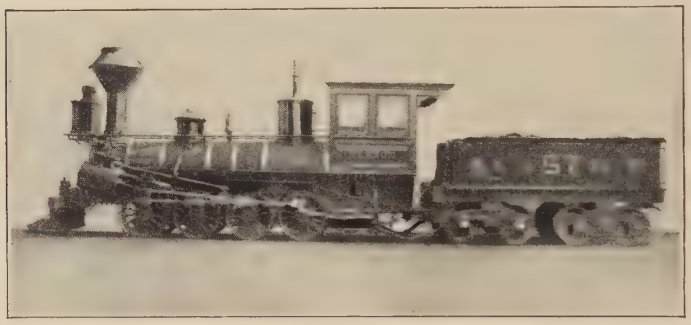
ONE OF THE EARLY HORSE-DRAWN CARS USED IN 1829 BEFORE THE ADVENT OF THE RAILROAD

be kept from promotion because there are other men, perhaps not so able, who have been longer on the job. What do you think of this system? Give some arguments for and against its employment. Do you suppose that this accounts for the fact that so many men stay in the service? If you can talk with some railroad employee, do so, and bring his opinion on these things to the class.

The majority of men holding official positions today are men who began as switchmen, section men, telegraph operators, etc. Will that be true in the future? A com-

mittee from Yale University spent a year investigating the question of helpful efficient college courses for railroad service. Hundreds of railroad authorities, many universities, and agencies having to do with various phases of railroad service were interviewed. The Committee recommended, among other things, that seniority be made of secondary importance, putting ability first.

Education and training. You can get a job with a railroad company when you have finished the eighth grade.



AN EARLY TYPE OF FAST LOCOMOTIVE

The pay, however, will be small. You can get a much better position if you are a high-school graduate and know something about mechanics. Although the railroad companies require little schooling of their beginning employees, they realize its value, and a number of them have instruction cars that go from place to place and give short courses of training. These are for beginners in the service. Other employees are encouraged to continue study. People in railroad service make up a large percentage of the enrollment of correspondence schools. Promotion is impossible without study. An alert, capable youth may enter employment early, and by continuous, earnest study fit himself for better and better positions.

In many ways it is far wiser to get that schooling first. Concentrated study is not an easy thing at the end of a day's work.

Among the universities offering courses in phases of railway service are Columbia and Harvard and the state universities of Ohio, Illinois, California, and Minnesota.

Heidrich-Blessing Studio

AN AIR-CONDITIONED, STREAMLINED TRAIN
This train speeds through a quiet countryside

Today technical men are being sought by the companies. While they, too, must begin at the bottom, opportunities are opened to them, and they may reach at the age of thirty-six positions that untrained men seldom reach before they are fifty. Write to the Pennsylvania Railroad Company, to the New York Central, or to one of the other large railway companies and get information concerning their training schools.

Entering railway service. A wise way to enter railroad service is to get employment in a small station, where much of the work of the railway system is done on a small scale. In this way you can get acquainted with a number of lines of work and find out which appeals to you most strongly. Before deciding on any one branch of service, talk to men who know it well. They can give helpful advice and assistance.

Personal qualities. Railroad companies lay stress on native intelligence and certain personal qualities. Their employees must be punctual and temperate; they must be able to assume responsibility; they must have good eyesight, keen hearing, and sound bodies. Because many lives depend on their ability to read and understand orders written in English, they must know English.

Women employees. A great many women are employed by the railroads. The majority of them are secretaries, clerks, information-bureau directors, telegraph and telephone operators. There are, however, as many as two thousand station agents who are women.

Salary. In the railroad industry, as in other occupations, there are many grades of employment, from the baggageman in the station to the president of the road. Some median yearly incomes of railroad employees are as follows: locomotive engineer, $2450; railroad conductor, $2300; train dispatcher, $4200; telegrapher, $1600.

Water transportation. Why is it that goods can be shipped by water more cheaply than by land? A much bigger business is carried on by shipping companies along the great lakes, the Atlantic and Pacific coasts, the Gulf of Mexico, the Hudson, St. Lawrence, Mississippi, and other rivers, and along the canals than people realize. Consult the current World Almanac, and find out the relative importance of the canals of the United States:

of the Atlantic and Pacific coastwise trade. It will be interesting to find out the chief ports, with what countries the United States carries on the greatest trade, and what are the chief imports and exports.

Air transportation. Up to the present airplanes have not made serious inroads on the business of other methods of transportation, but that air transportation will be an

A RIVER BARGE

Ten thousand tons of by-product coking coal on river barge

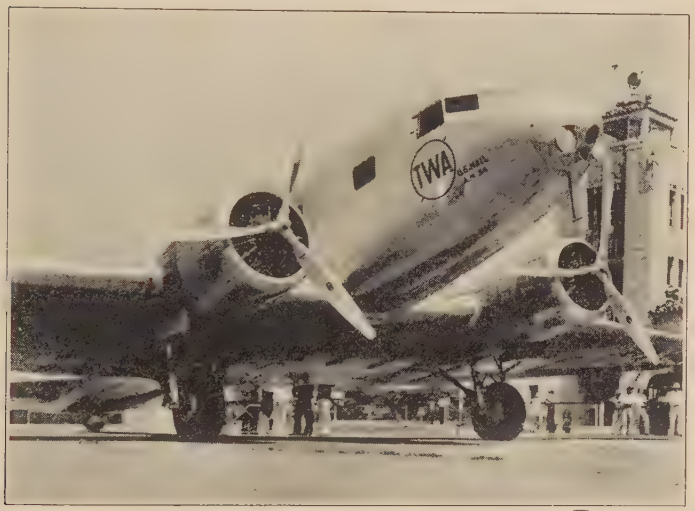
important factor in natural progress is an accepted fact. Men have made flights from America to Europe and from Europe to Australia and South America. Even with the business of the airplane greatly increased, you might think it would mean the employment of comparatively few men. However, besides the engineer who designs and builds the machine (and this requires the very highest type of engineering), there are the pilot, who flies it, and from twelve to twenty men on the ground — engine mechanics, electricians, repair men, riggers, etc.

Air transport is young. The United States has been using it in mail service only since 1920. Now it is used in aërial forest patrol to observe forest lands and report the beginnings of fires etc. It is used for spraying great fields of grain and fruit. It is used by the coast guard for the protection of life and property at sea. The Weather Bureau uses it. It is used in photography. In Canada it

A PASSENGER BOAT OFF FOR ALASKAN PORTS

is used for the mapping of remote forest lands, as a patrol, and for transportation in outlying districts. Traffic experts tell us there is plenty of merchandise available for air transportation at higher rates than those now paid to railroad and steamship lines, for thereby time is saved and fragile articles can be insured at a lower rate. Water traffic has the advantage over railroads in that it does not have to build nor keep in condition a right of way. Air service has an additional advantage: with air service it is not necessary to stop at the coast line and transfer cargo to a motor truck or railway.

Commercial air lines are now extending to every important point on the globe. Airliners carry mail, freight, and passengers from country to country as regularly as ocean steamships and in a small fraction of the time required by these. Exploration and relief work in catastrophes are additional important functions. In Australia



Transcontinental and Western Air, Inc.

A MODERN TRANSPORT PLANE

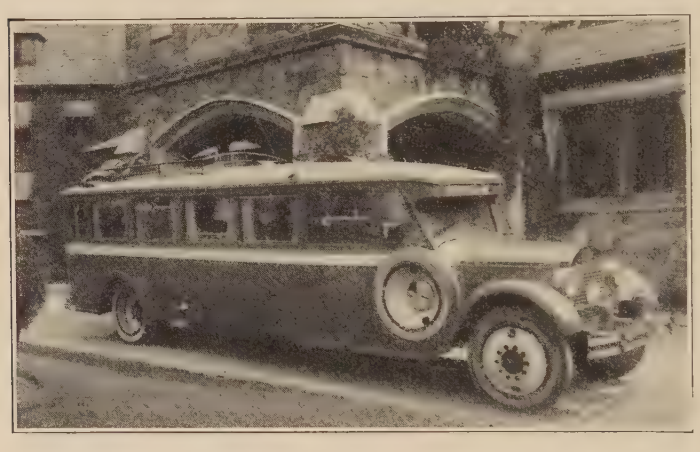
Great planes bearing passengers, mail, and freight ply regularly between all important trade centers

there are "flying doctors." The country has been mapped out into circular districts with a radius of two hundred miles to be covered by these doctors. One physician, located at Darwin, has an airplane practice extending over an area ten times that of Great Britain.

And aviation is in its infancy. The demand for aviators, for aëronautical engineers and trained mechanics, is bound to increase steadily. The Massachusetts Institute of Technology is now admitting sophomores to its work

in aëronautical engineering, which for fifteen years was open only to graduate students and a few seniors. The approximate average salary for transport pilots is $6000; the trained mechanic gets from $150 to $300 a month.

Highway transportation. Eric Stewart wants to move his household furniture to another town, one hundred and twenty-five miles away. Should he use railroad or motor truck? Find out what the probable charges of a railroad



A MOTOR BUS

and of a truck company would be for hauling the furniture of an average house of five rooms — two bedrooms, living and dining rooms, and kitchen — one hundred and twenty-five miles. There is an upright piano. Would he have to crate as many things and pack as carefully if he used the truck? Remember, if he sends his furniture by railroad he must pay to have it hauled to and from the stations. Inquire about the average length of time it will take for him to get his furniture by the two routes.

Motor trucks adapted to short hauls. For a long time railroad authorities have agreed that a railroad loses on

a haul of less than forty miles. Many of them today declare they lose money on hauls of much less than eighty miles. As a rule, motor-truck companies do not make regular trips in more than a fifty-mile radius on a door-to-door basis. There are well over fifteen hundred organized truck companies in addition to the fleets of trucks owned by the manufacturers and shippers. Fully three fourths of the oil from Texas and Oklahoma is transported by means of trucks specially designed for the purpose.

Some two thousand of the four thousand coal mines of the country are without railroad connection. Motor trucks are being used more and more to haul coal from the mine to the railroad spur. They will be used increasingly to haul coal directly to the houses; and by being used to carry the miners to and from work, they may eventually do away with mining camps.

Occupations to be filled in motor-truck companies. For the motor-truck companies there must be trained solicitors for trade — men who thoroughly understand costs, insurance coverage, conditions of roads, etc. Then there is always a traffic manager to direct all traffic, who must know the exact condition of all roads and streets, just where each truck is at any hour of the day, etc. He or his deputy must see that the trucks are kept in condition at all times. Much of the profit of his company depends upon his ability and alert watchfulness.

Motor busses. Today there are some 120,000 motor busses in the United States. Slowly but surely they are crowding out of business the electric interurban lines and many city lines. One company serves the public over two thousand miles of road. There is a growing demand for young men in the motor-bus business. Trained men are especially needed in administrative positions, as inspectors, division foremen, for traffic study, etc.

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CHAPTER XIII

MANUFACTURING

Large per cent of wage earners in manufacturing trades. If one hundred working men and women stood in a long line representing all the wage-earners of the United States, and the Secretary of Labor should ask all those who work in some factory to step forward, it has been estimated that thirty-six of them would advance one step. Thirty-six per cent, or about nine million, of the wage-earners of the United States are employed in factories. That leaves 64 per cent to fill all other positions.[1]

Take a pencil and list all the manufactured articles you can see from where you are sitting. Do not forget your own clothing. When you have finished, make a separate list of the manufactured things you can remember within a period of ten minutes. Do you think the first statement in this chapter is a conservative one? Below is the United States Census list of manufacturing industries:

Chemical and allied industries
Cigar and tobacco
Clay, glass, and stone
Clothing
Food
Harness and saddle industries
Iron and steel
Other metal industries
Paper and paper mills
Lumber and furniture
Printing and publishing
Shoe factories
Shoemakers and cobblers
Stonecutters
Structural-iron workers
Tanneries
Textile industries
Tinsmiths and coppersmiths
Upholsterers
Miscellaneous

[1] *Bulletin No. 5*, National Bureau of Economic Research, New York.

Under how many of these general heads do the various objects you have listed come?

The National Bureau of Economic Research gives us a much shorter list:

Food, drink, and tobacco
Lumber and its products
Paper and printing
Metal and metal products
Mineral products
Textile and leather products

A new industry. Manufacturing in factories is a comparatively new industry. It may be that your great-grandmother's mother made her own candles, since even oil lamps are a comparatively recent invention. She probably made her own soap and knitted the stockings for the family. Possibly she carded and spun the wool and wove the cloth from which she made the family clothing. Ammunition for firearms was also made in the home. Shoes, much of the furniture, and all the bedding were homemade. You know manufacturing comes from two Latin words: *manus*, meaning "hand," and *facio*, meaning "make." Thus the word "manufacture" means literally "made by hand." This is exactly what it did mean a little more than a century ago.

The beginnings of manufacturing. The beginning of the changes which substituted machinery for tools appeared in England about a century and a half after the Pilgrims came to America. The spinning jenny, a machine which made it possible to spin a half-dozen threads at one time, was invented about this time and was used secretly for a while before it was patented. Then a crude steam engine for pumping water out of a mine was set up. Years of study and much experiment were necessary before this invention was adopted for use in the factories.

After its perfection the output of a factory was no longer limited by the number of wage earners obtainable.

When men found that machines were so much more able than their tools, they left the country and went to live in the towns where the machines were housed. Instead of attempting to make by hand everything used in the home, a man worked in a factory where he made a

MEN WORKING IN TOOL ROOM

particular thing. With the wages he received for this work he bought the many things he needed, which in turn were being made in other factories by other people.

What manufacturing is. You see the business of manufacturing is to change raw materials into products suitable for a particular use. For instance, furniture is made from wood; footballs and shoes are made from leather; cloth is made from cotton, wool, or silk; and so on. And what is a finished product for one factory may be raw

material for another. One manufacturer buys cotton and sends out as his finished product thousands of yards of cloth; another buys the cloth as his raw material and sends out as his finished product dresses, sheets, aprons, etc.

Use of machinery in manufacturing. In the constant endeavor to turn out more finished products and to do so

MEN WORKING IN POLISHING ROOM OF LARGE MANUFACTURING PLANT
Notice large suction pipe to carry off dust particles

with greater ease and added speed, more machines are being continually introduced into the factories. In the manufacture of glass — where for a long time it was thought no machine could ever be substituted for the human touch and where now nearly every kind of glassware can be made by machinery — one machine operated by one man can do the work formerly required of forty-one men. Machinery has enabled manufacturing to be-

come the gigantic industry it is. Some thoughtful persons are now asking if its continued introduction and perfection will not cause too much unemployment among the wage earners.

Wide variety of trades employed in manufacturing. If you should decide to become a factory worker, you would

BUILDING AN EXPERIMENTAL AIRPLANE FOR ARMY AIR SERVICE

have a wide choice of trades open to you. George Allan wanted to become a shipbuilder, and during the latter part of his sophomore year at high school his father went with him to the Atlas Shipyards to find out something about the work. They discovered that mechanics skilled in thirty different trades were necessary in shipbuilding. Among them are ship-fitters, pipe-fitters, machinists, pattern makers, riveters, calkers, drillers, coppersmiths, steel-mill workers, anglesmiths, shipwrights, riggers,

flangers, bolters-up, crane operators, and loftsmen. These are in addition to the army of unskilled workers employed about a shipyard.

George was astonished to find so many trades represented in one general occupation. His father owned a small paper-making plant, and after a thoughtful silence George asked him what trades were found in paper-making. The boy was surprised again at the number his father named; among them engineers, chemists, sorters, shredders, cookers, loaders, sizers, graders, deckel-tenders, felters, driers, calenderers, inspectors, folders, cutters, wrappers, and packers.

The Automobile Industry

An interesting industry. On their way back from the shipyards George and his father stopped at the automobile show which was being held that week at the City Hall. As they inspected the handsome polished cars, with their powerful engines, their beauty of line and color, and their attractive upholstery, George's brow puckered thoughtfully. Finally George and his father paused before a chassis which had been placed on a great mirrored surface so that its underparts were clearly visible. The engine was running; and as it purred quietly, with a suggestion of much power, an attendant stood by answering questions and demonstrating the flexible running parts.

"Dad," George said softly, "I'll wager it takes a lot of skilled mechanics and other men to get this thing out!"

"It is a marvelous achievement," replied his father. "Any kind of driver takes the wheel, drives it over any kind of road at any speed, and it survives. It must take skill and men. Let's find out about it."

They talked with some of the automobile men before they left the auditorium, and that evening after dinner they went into the library. After looking through the International Yearbooks for the last four years and reading the article on automobiles in the Encyclopædia

GIRLS WORKING ON LIGHT MACHINE WORK

Notice high-backed chairs. In this factory aprons and sleevelets are furnished by the company

Britannica, George, at his father's suggestion, hurried down to the public library to get some magazine references from the Readers' Guide and some more books on the subject. An interesting week followed. At the end of that time he and his father had found out some surprising facts. Should you like to know some of them?

The automobile industry of amazing growth. They learned that in 1899 there were only 2241 wage earners

in automobile manufacturing; in 1909, ten years later, there were 75,721; twenty-one years after that there were 787,800. These figures include the workers engaged in manufacturing various parts. It is an industry of unexampled rapidity of growth, rated by the United States Department of Commerce as the largest business in the country.

Work in motor factories highly specialized. They found that the work in motor factories has been specialized to a degree found perhaps in no other line of manufacturing. Each workman does only one particular thing — nothing else. By this method he soon comes to be an expert at his special task. It is estimated that any one of nine tenths of the many different jobs in the industry can be learned within six months. Should you judge from this fact that the work requires any special skill? Very high standards of workmanship are necessarily required in the construction of a motor-driven car. It is an interesting fact that these high standards are maintained with a comparatively small number of skilled workmen. And this is possible because the work is so highly specialized. It follows, too, that if a man does nothing but fasten left front fenders onto a car, he will soon be able to do it rapidly. In this way production is increased. Just how interesting it continues to be is another matter.

Job specifications fall into seventeen groups. In the automobile industry George found that there are about 475 different jobs, which fall into seventeen groups as follows: foundry, forge, sheet-metal, spring, production-machining, heat-treating, tool and standards, wood-mill, body-in-white, paint, body-trim, body-assembly, assembly and bench, stores and receiving, traffic, construction and maintenance, and miscellanous departments.

The information is based on very careful researches carried out under the direction of the United States Employment Service, which is a branch of the United States Department of Labor. He learned also that this branch of the Department of Labor is studying other fields of work and that much valuable information about jobs may be obtained by writing to the Employment Service in Washington, D.C., which published in 1935 three volumes on *Job Specifications in the Automobile Manufacturing Industry*.

George had often wondered, as perhaps you have, how the block of an automobile engine is made. The quickest way to learn would be to go to any foundry and watch the men prepare the molds and cores and pour the melted metal into the molds. Briefly, the mold forms the outside of the block, and the cores occupy the space which is later taken by the pistons. To be sure, the block or manifold or crank case or whatever else is molded must be finished in a tumbling machine and by sandblasting, and sometimes by filing.

Probably both of you have wondered how the tough steel parts such as the crank shaft or axle are made. This is done in the forging department, where bars of steel are heated to "forging temperature" and then subjected to pressure by powerful hammers.

You have also wondered how so many automobile bodies can be made exactly alike. George learned that this is done in the sheet-metal department. The metal is cut into suitable sizes and then placed on dies. On these dies huge rams, whose lower faces are dies fitting into those below, press, crimp, punch, or trim the metal into the desired shape or outline. Not bodies alone but fenders, hoods, and chassis frames are shaped in this department.

In the spring department, steel bars are cut into the proper lengths, heated white-hot, shaped, and then tempered in an oil bath. Coil springs are made by curving a heated steel rod by means of rollers around a smooth cylinder. It is then slipped off the cylinder and tempered as above.

In the production-machining department those parts which have been molded or forged are machine-polished in order that they may work with the least possible friction. Frequently they pass on an assembly line through several machines which perform the different services necessary to the desired precision. When you recollect that some automobile engines run for fifty thousand miles or more before they begin to need repair, you can get some idea of the fine work in this process.

In the heat-treating department many parts of the automobile which must be especially tough or hard are subjected to so-called heat-treating processes. They are passed through furnaces heated to the proper temperatures, and then cooled slowly for toughening or quickly if the purpose is to make the materials hard. Some parts, such as crankshafts and camshafts, must be exceptionally hard and are subjected to case-hardening by being heated with carbon or dropped into vats of hot cyanide.

One may wonder where the many tools, dies, and presses needed for making the various parts of an automobile are obtained. These are made in the tools and standards department. Making patterns for molds and dies for presses and steam hammers is an immense job, but is usually done by the factory which makes the car. The most minute exactness is usually required, and much checking of gauges and testing devices must be done.

Under the heading of "Body Construction" might be listed the wood-mill, paint, body-trim, and body-assembly

departments. In the wood mill all the wooden parts of the automobile are prepared. The work is not unlike that done in an ordinary planing mill except that so many different pieces are made. In the body-in-white department the pieces of wood and the sheet-metal parts are put together to form the body. In the paint department the entire exposed surface of the car is subjected to very careful cleaning, filler is put on and rubbed in, and from five to twelve coats of finishing paint are sprayed onto the body. Very careful inspection must follow each coat. In the body-trim department the complete job of upholstering is done, and the interior of the body is made attractive. The body-assembly department coöperates with the body-trim department and supplies the plate-glass windows, door and window fixtures, dome lights, cigar-lighters, and other equipment required to make the body complete.

The assembly and bench department takes care of putting together the many parts of the machine as it passes along the assembly line. After the engine, wheels, brakes, and many other parts are together in the chassis, a huge crane carefully lets the completed body down onto the chassis. It is fastened on; the car is polished, adjusted, and inspected, and is ready to go.

In addition to the departments mentioned are the stores and receiving department, traffic department, construction and maintenance department, and miscellaneous department, which differ little in function from similar ones in other manufacturing establishments.

Other departments. Every large factory has, besides the production division, the general departments of engineering, purchasing, personnel management, accounting, and selling. Since these activities are discussed elsewhere in this book, only the work of the designer and the draftsman will be outlined here.

The designer in any factory holds an important position. He is the mechanical engineer who must plan and think out how different mechanical devices may be constructed to meet any given situation. To do this he must have a thorough knowledge of the science of mechanics, the mathematical knowledge necessary to compute strains and stresses of different parts, and a broad technical training. Not all designers are graduate mechanical engineers; but all successful designers are thoroughly familiar with the field, and most of them have had much practical experience in the mechanical world before they became designers. The designer's work is not finished at the end of the day: he carries the thought of it with him. The forward-moving progress of the industry depends largely on his department.

The draftsman, on the other hand, has little responsibility thrust upon him. His work is over when he closes his desk. He must have mechanical ability, must be able to read blue prints, and must have the patience to take pains. He receives the sketches or ideas from the designer and makes working drawings of them. The department has a foreman who assigns work to the men under him and sees that nothing goes out of the department which is not correctly done. He should have at least a high-school education. If he expects to advance, further training will be helpful. Many engineering graduates become chief draftsmen and are promoted on merit to the position of engineer or designer. The draftsman should be artistic in his taste and exceedingly exact. A small mistake may cost his company a great deal of money and inconvenience.

Income of the automobile worker. From their reading, George and Mr. Allan found it difficult to estimate a definite scale of wages. The work varies from highly

A LARGE MANUFACTURING PLANT

skilled labor to comparatively low skilled labor. Rates of pay are not the same in the different plants. The work is seasonal. One estimate shows that if the work ran full time the average wage earner would receive something above thirty-three dollars a week; but, as it is, the average pay check for a week is less than thirty dollars.

Opportunity for advancement. In large plants — and the present-day tendency in all manufacturing is toward a scale involving millions of dollars and employing thousands of workers — there are chances for advancement to the job of foreman, and the chance of promotion to higher wages is fairly good. Because of the centralized factory organization, however, there are comparatively few supervisory and executive positions. The men who do advance, do so because of continued study and application.

George was sorry when the week was up. He had keenly enjoyed their hours of reading and investigation and felt that he had learned some things worth while.

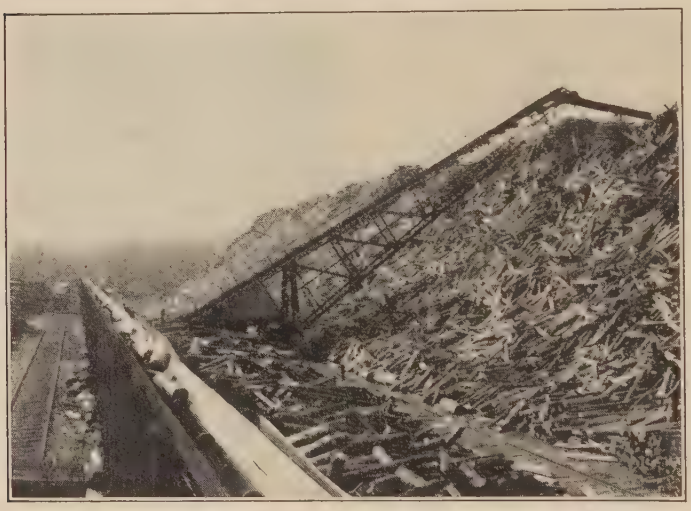
Training required. You have learned that little training is required for the jobs of low-skilled or semi-skilled rank. But suppose, if you choose manufacturing as the work you want to go into, you aim higher and desire to enter one of the skilled trades. For that you will need training. Education can shorten the road to advancement in the manufacturing world just as it can in almost every occupation at which men work. Can you divide a rod nine and three-fourths feet long into seven parts of equal length? If a piece of cloth must be cut 16 per cent longer than it is wide, should you be able to do this unhesitatingly? You have had percentage, fractions, and such things in your airthmetic; but can you use your knowledge confidently in everyday life? Knowledge of practical arithmetic is important.

There can be no question about the advantage of a technical high-school course as preparation for the skilled metal trades. Shop work will give you acquaintance with the different materials and some skill in using tools and machinery. Physics and mechanical drawing will be helpful. Special training may be obtained in the technical high schools, public trade schools, trade schools conducted by manufacturing companies, and through apprenticeship. As an apprentice a boy usually works under an expert for a number of years, the number depending on the trade. He receives a small wage, which is increased from year to year. Do you ever see copies of the magazines *Popular Mechanics* and *The Illustrated World*? Look them up in the library.

Some personal qualifications to be considered. If you plan to work in a factory, be sure to select work suited to your abilities. Ordinarily you should be deft at working with your hands, careful, and patient. In an industry where the work is highly specialized, the job of doing one particular thing over and over is likely to become monotonous unless the worker has a real liking for his work and takes pride in seeing it well done. You should have an ambition to learn more than just the thing at which you may be employed. The employee who studies the job next higher is the fortunate one when a vacancy occurs. Good health is important in the work. The liking for machinery and the pleasure that comes from working with things rather than with people are desirable qualifications. One manufacturer says many people fail to make good from lack of power of concentration. Inventiveness is comparatively rare and is highly desirable. Exactness and a tendency to lay out all work carefully and check up on one's progress are very essential.

Printing and Publishing

How many newspapers does your city support? Count the number of different magazines on a news stand. Find out the circulation of three of the more popular magazines. Take a look around the shelves of the public



THE WOOD IS ON ITS WAY TO A PAPER MILL
Nine tenths of all our paper is made from wood pulp

library the next time you have an opportunity. Printing and publishing are occupations well worth considering.

Development of printing. About a thousand years ago the Chinese were printing by engraving letters on a block of wood, inking the surface of it, and then placing a sheet of paper over it and rubbing or tapping it until a satisfactory impression was received. Some five hundred years later, in 1450, you remember, Gutenberg invented a hand press. He made movable type, setting

it up in a kind of bed or table and inking it by hand. A sheet of paper was placed over it, the type was then pushed back under a smooth block of wood, and this was clamped down over the sheet by means of a large screw. By unremitting work fifty sheets could be produced by this press in one hour.

Today we have the rotary press, which is composed of two huge revolving cylinders, one carrying the plate that does the printing and the other carrying the paper. Some enormous newspaper presses have more than fifty thousand parts and consume paper at the rate of seventy-five miles an hour. One machine, working at high speed, prints in colors, folds, and pastes seventy-five thousand twelve-sheet newspapers within an hour.

Many skilled trades employed. More than fifty skilled trades are employed in this industry. The big majority of employees are skilled workmen. Following are the seven subdivisions of this trade:

Composing room
Pressroom
Bindery
Lithographing room
Electrotyping room
Photo-engraving room
Stereotyping room

Few plants contain all seven of these groups. A large newspaper plant has the first two and the last three; a job-printing shop usually contains the first three groups. Some plants specialize in one line — the manufacture of plates from which to print, the binding of printed matter, and so on.

Some advantages and disadvantages of the work. Employees in this industry have more regularity of employment than workers in most factory industries. They

are among the best paid of industrial wage earners, and because of the comparatively large number of foremen, superintendents, managers, and proprietors there is good opportunity for advancement. The trade is highly unionized. The apprenticeship system prevails here more than it does in most industrial occupations. All of the work is indoors, and in some departments much of it is done in stooping positions. In the composing room, unless the ventilation is carefully looked after, the presence of gases from the molten metal may be annoying and harmful.

Details of the specific occupations in the printing and publishing world may be found in the references at the end of this chapter.

Suggestions

Getting some first-hand information. If it is possible for you to make a study of some local factory, such a study as George Allan and his father made of the automobile industry, you have some interesting times ahead of you. Consult the references given at the end of the chapter. You will find helpful information in the various issues of the *Monthly Labor Review*, which is issued by the United States Bureau of Labor.

A problem. Here is a problem that will have to be met in the near future. It may confront you by the time you have become men and women. At the beginning of this chapter we spoke of the continual introduction of improved machinery into the factories. The fact was mentioned that in a glass factory one man with one machine now produces what it formerly required forty-one men to do. That is only one of many possible illustrations showing how one machine and its operator have taken the place of a number of employees. In a Southern state

an operator with a cotton-picking machine can pick more cotton in seven and one-half hours than one competent man can pick in an entire season of three and one-half months, thus taking the place of about seventy-five men. In 1919 there were 213,631 factories in the United States. Fourteen years later there were 141,769. Within fourteen years some 71,862 factories had closed their doors, and the remaining factories were employing nearly one million fewer men.

Restriction of immigration and the constant creation of new wants help to take care of the men who have lost their positions through the introduction of machinery. When the sewing machine was introduced, there was much agitation over the fact that many seamstresses would be thrown out of employment, whereas time has proved that thousands more women earn their living by sewing than could possibly have done so without the sewing machine. Moreover, some employers used to drop men at the ages of forty-five and fifty because of their loss of skill and their physical decline. Now, with the machine doing the heavy work, a man of fifty can operate it fully as well as a man of twenty-five. There is no question, however, that new machinery is causing unemployment. Automatic and semi-automatic machines make the problem even more acute.

Will a five-day week serve as a partial solution? The American Federation of Labor advocates this plan as the best method of preventing overproduction and consequent unemployment.

What about the future? There are two very important facts to remember, as Lincoln Steffens in his book *Lincoln Steffens Speaking* so vividly reminds us: that nothing in the world today is done finally and right, and that nothing is known positively and completely. He goes on

to point out that we have not now and never have had in the history of the world a good government; that there is not now and never has been a perfectly run railroad, school, newspaper, bank, theater, factory, or grocery store; that no business is or ever has been built, managed, financed, as it should be, must be, and will be, someday — possibly in your day; that the best picture has not yet been painted, the greatest poem is still unsung, the mightiest novel remains to be written, the divinest music has not yet been conceived.

In science, he tells us, probably 99 per cent of the knowable has yet to be discovered. Our knowledge of astronomy is fragmentary in the extreme. Both chemistry and physics fairly bristle with questions. As for sports, young men and women are beating our old records every year. There are millions of unsolved, solvable problems, millions of jobs, big and small, for all of you.

Less than fifty years ago people laughed uproariously at the first "horseless carriages." Today six million people in the United States are engaged in motor transport. Aviation is in its infancy. The radio field is just opening up. Television is on the horizon. And there are other. now entirely unknown and just as amazing, new sciences to be discovered. There will be work for you — interesting, absorbing work — if only you are ready for it.

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CHAPTER XIV

ADVERTISING

William Rockwell has devised a window box to be used for flowers or a tiny kitchen garden. It is light in weight but very strongly constructed. It has a unique drainage system, which guarantees that neither window sills nor walls will be stained. It has an adjustment slide of six inches and can be made to fit practically any window. It is so inexpensive that every family in city or country should own some of them. Growing flowers beautify any home. They lift a dwelling out of the ranks of a mere house and make it a home to be returned to with pleasure. Realizing keenly the uplifting effect of growing flowers, Mr. Rockwell plans to deliver with each window box three packets of choice flower seeds.

Any family who realizes that such a window box is obtainable at so small a price is more than likely to become an eager purchaser. What is the best way to inform it? Consider yourself the agent employed to get these boxes before the public. Outline a plan for doing so.

What medium shall you use? What medium do you think will be most effective? There are the newspapers, the magazines, the billboards (this includes posters, electric signs, street-car placards, etc.), and the mail. Keep in mind that there are two big classes of advertising: general and local. Since your window boxes are designed for any and every home, you might write, or lay out the

plan for, a local advertisement for the town or community in which you live, and then write one with a national appeal. If there is to be a picture in your advertisement, either make a sketch or tell what must be in the picture.

What is an advertisement? Before you start in on your plan, let us see just what an advertisement is. Here are

AN EXAMPLE OF EFFECTIVE ADVERTISING, TIMES SQUARE, NEW YORK CITY

two definitions, one given by an eminent schoolman and the other by an advertising expert: "Advertising is the presentation of goods or service in such a way as to appeal with the greatest results to the largest possible buying public." "An advertisement is simply information about a salable commodity presented in such a way as to attract, to convince, and to persuade."

In your plan you want first to present your window boxes in such a way as will make that one advertisement

stand out from all the other hundreds and attract the attention of the buying public. Then your written copy should be so convincing, should ring so genuine, that the reader should feel confident that those boxes are the best-constructed, the most practical and the most attractive of all types of window boxes. Finally, if you can make the reader feel that the possession of one or more of your boxes is necessary to his happiness and well-being, you have composed a successful advertisement.

Planting the seed of conviction. As a rule expert advertising is intended to create in the mind of the public the conviction that a certain brand of shaving soap, cold cream, bed spring, car, or what not is superior to any other in its line. So when that public needs any special article, it knows at once just what kind to ask for.

Who knows? Some day two or three among you may be well-known, sought-after advertising men and women. Draw up your plan carefully.

Advertising key to business. Without advertising, business on a large scale could not exist. Advertising is itself one of the most important lines of business in the world. Before the days of rapid communication and transportation it played an insignificant part; today it is one of the greatest forces in the business world. It has been estimated that in the United States alone nearly two billion dollars are spent annually for advertising. A number of large manufacturing and retail concerns appropriate several million dollars yearly for advertising.

What about the consumer? The man who advertises profits greatly. A wise firm never stops advertising. Its business continues to grow, and it continues to increase its appropriation for advertising. Business is thoroughly convinced of the slogan "It pays to adver-

tise." A fact not always recognized is that the consumer profits largely as well. Before you read any further, make a list naming three or four ways in which the buying public profits through advertisements.

Fraudulent advertising. The newspapers and magazines early discovered that dishonest advertising reacted

ADVERTISING ARTISTS AT WORK

strongly against them, since it betrayed the confidence of their readers. So they began refusing space to untrustworthy advertisements, and today all the better publications stand behind the things advertised in their pages. Many of them maintain laboratories to verify every advertisement before it is given space in their columns. One magazine places a star by the side of each article which has been tried out and approved by its own institute, and agents displaying such an article refer to the fact that it bears the stamp of that magazine's ap-

proval. Twenty-eight of the United States have adopted a law against fraudulent advertising, and the Associated Advertising Clubs maintain a fund to prevent advertising that oversteps the truth. The chief essentials of advertising today are truth and accuracy. Thus the general public is protected against frauds.

Advertising educates the public. Through advertising, the consumer learns to discriminate and choose wisely. He learns what the better things are and in what ways they are superior and why. He can build a house or buy a car or order a pair of shoes more intelligently because of advertising. More and more women (who do seven eighths of the buying) are demanding certain labels, standard brands, and trade-marks on everything they purchase, from bacon to grand pianos. They demand these labels because they have come to know that when a man puts his name or trade-mark on a thing it is his guaranty to the public that he stands behind that article. Someone has said that a company's advertised trade-mark is its promissory note to the public. When a firm's name or trade-mark has been established, it becomes a prized possession. In one case the investment bankers who bought out the interests of a large motor company, paid, in addition to the huge sum for all interests and equipment, fifty million dollars for the continued use of the firm name. Can you see any good reason for paying such a sum for a mere name?

Mr. Floyd Parsons states that in the case of many companies the trade-mark of the concern has a value far greater than the total equipment of the corporation's plants. He adds there are easily a dozen well-known trade-marks appearing regularly in the newspapers and magazines of the country that have a value of from five to ten million dollars.

How many of these slogans do you recognize? Identify each:

Say It with Flowers
Ask the Man Who Owns One
Hasn't Scratched Yet
57 Varieties
When It Rains It Pours
All the News That's Fit to Print
$99\frac{44}{100}\%$ Pure
It Floats

The man who originated the sign "Stop! Look! Listen!" was paid $6000 by the railroads. Can you think of a slogan for your window box?

Unlimited opportunities in the advertising field. The field of advertising has unlimited possibilities. Because advertisements are constantly before the eyes in street cars, on billboards, on theater programs, in the movies, on handbills, etc., or because they are so attractively portrayed, or because the profession is a comparatively new one and has such inviting possibilities, a great many persons have decided to choose this occupation as their own. For this reason the field is rather crowded with many would-be advertising men and women, but there is an insistent call for the able, efficient ones.

Qualifications for success. To succeed requires far more than the decision to choose advertising as a life work. A good general education is essential. However, a full college course is not necessary to success. One must be able to write clear, terse, forceful English and be able to think a thing through and to visualize it in finished form. He must possess enthusiasm, energy, imagination. A primary requirement is the possession of originality. A keen understanding of people, the knowledge of how best

to appeal to them, is essential — the ability to say the right thing in the right way at the right time.

Thousands of pupils are enrolled in the schools which offer courses in advertising. These courses are desirable in that they shorten the time of apprenticeship. As a rule the advertising agencies and departments prefer to select their workers on the basis of general education, their individual ability, and the experience they have had. The experience gained in a small newspaper office in printing and engraving, in a retail store where actual selling is done, and as a traveling salesman is invaluable; for here one becomes acquainted with the buying public, its likes and dislikes, gets a general selling experience, and can test his ability and the probability of his succeeding in silent salesmanship.

Stenography and a knowledge of economics and of psychology are important. Stenography often serves as an opening wedge into an advertising agency or department. Frequently vacancies are filled by able, interested office workers who are acquainted with many phases of the business.

Look carefully over the advertising section of one of the leading magazines. If you had to name just two necessary qualifications for a successful advertising man or woman, what would they be?

Advantages and disadvantages. The business of advertising means long hours of hard work; frequently it means long hours of hard work at high pressure. If a given advertisement has to be in at midnight on Wednesday, it must go in whether or not the copy writer or artist eats, sleeps, or rests. Often the offices where the work is done are small and inconvenient. But there is always the chance of rapid advancement. Work is judged on just one score, its success. Promotion may come overnight.

Then the advertising agent has the assurance that he is serving his fellow men in a way that is worth while. By his honest advertising he helps to assure better goods at lower prices, and at the same time he is helping to educate the public.

Types of positions in advertising. Now for the work itself, the actual positions to be had in the profession. At the top of the profession is the advertising director or manager. He must have a college education or its equivalent; he must be able to build up and establish a name for the firm or to maintain one already established; he must have a thorough training in advertising methods and must know the businesses of a great many people; he must know the public and how best to gain its attention and confidence; he must be able to plan and execute. Under his direction, in a large advertising agency, will be found the following departments: new business, research, planning, space buying, radio production, copy, art, shipping, and checking.

The radio has lately become a powerful advertising medium. With an estimated audience of 100,000,000 people in the United States alone, its possibilities and those of television are almost unlimited. Why not suggest to your instructor that your class check the total radio advertising carried at certain hours of the day during one week?

It has been estimated that there are over a thousand manufacturers whose products are nationally advertised in the United States. The big majority of these, as well as a great number of smaller concerns, do all their advertising through some agency. This is not generally true of large department stores. Their advertising is the largest and most important done in the United States. It is mainly local, and its chief medium is the daily news-

paper. The advertising director of a department store is sometimes the sales manager as well. He must be an able person of wide experience and must know the general field of publicity and the details of local advertising. When such a store spends millions, obtaining a whole page in several daily newspapers three hundred and sixty-five days in a year, it wants results, and the advertising director must be able to produce them. Under him are one or more assistant managers, secretaries and clerks, copy writers, artists, window dressers, etc.

The advertising manager of a newspaper holds an important position on the staff. He commands a high salary, and his position is comparatively permanent. A newspaper with a circulation of a hundred thousand may employ from ten to twenty persons in the advertising department. A large city daily may employ from thirty to fifty persons in this department. This, of course, includes solicitors, clerks, desk men, agents, etc. The position of solicitor for the different advertising departments is an important one.

The advertising department of a magazine is even more highly organized than that of a newspaper. Frequently magazines furnish a variety of made-up forms for the advertiser. There are various departments of research; and the assistance of their plan men, artists, and copy writers is at the disposal of their patrons. Some of the magazine advertisements are works of art. Artists of national fame are frequently engaged by great concerns to furnish the picture in an advertisement. Look through some of the well-known and popular magazines in your home or in the public library and bring to class three unusually attractive advertisements. Tell why they will appeal. What people will be especially interested in the articles presented?

Another way of advertising. Park B. Steininger, a grocer in a small town, instead of advertising in the local weekly paper gave to each customer at the end of the month a copy of *The Hostess*, a household magazine of high quality with a yearly subscription price of three dollars. The presence of a copy of this magazine in any home proclaimed the fact that Park B. Steininger sold groceries there. Was that good advertising? Why?

How can you forestall the remark, or thought, that like goods can be obtained cheaper elsewhere; for instance, candy, or ice cream, or patent-leather shoes?

Salary. The advertising manager for a large firm or agency is one of the highest-paid workers in the business world. If he is a member of the firm or head of an agency, his salary is limited only by the profits of the business. The salaries of solicitors, copy writers, artists, etc. are in direct ratio to individual ability and worth. It has been said that "the man whose mind is a factory for the continuous production of new ideas can probably make more money in advertising than in almost any other field of industry." [1] The beginning salary for copy writers is usually from twenty-five dollars to fifty dollars per week. Artists receive a salary somewhat larger than copy writers.

Colleges offering advertising courses. Among the colleges offering especially full courses in advertising are

The University of California
The University of Chicago
New York University
The College of Business Administration of Boston University
Columbia University
The University of Wisconsin

[1] J. McKinney and A. M. Simons, Success through Vocational Guidance. American Technical Society, Chicago.

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CHAPTER XV

INSURANCE

Many forms of insurance. A man in Fort Smith, Arkansas, ships three carloads of unusually fine Elberta peaches and takes out insurance for their safe arrival in Chicago. A film-producing company insured itself for $20,000 against loss resulting from there being no snowstorm before November 21. No snow fell before that date, and the insurance company paid the $20,000. A woman traveling from St. Louis, Missouri, to Toronto, Canada, takes out $5000 accident insurance for which she pays twenty-five cents a day. A progressive farmer insures his crop of wheat against loss by weather or rain conditions. If the weather is favorable and his crop is a good one, he can easily pay the insurance charge; if a drought, too much rain, or early freezing damages his wheat, he is paid for the loss by the insurance company. A stage beauty whose fortune is in her unique dancing insures her feet for $10,000. A college fraternity which each year gives an elaborate lawn fête takes out insurance against the loss which would result from rain or unpleasant weather. If the weather for the evening is favorable, the insurance company makes $50; if unfavorable, it pays the fraternity $500. Some insurance companies insure against loss of valuable jewels, furs, etc. Their business is based almost entirely on the honesty of human nature, for the company takes the word of its clients about the loss of articles. A woman collected $5000 for a ring broken by the slamming of a taxicab door.

HOME-OFFICE BUILDING

Home office of a large insurance company

A wide-awake young man reads the statement, verified by careful statistics, that only thirty-six out of a hundred men are self-supporting at the age of sixty-five, and he at once looks up a life-insurance agent to arrange for an income during his advanced years. A middle-aged man,

AFTER THE CRASH

Two automobiles, speeding in the rain through Central Park, collided with such force that they were completely shattered, and one of the passengers was killed and two others severely injured. In such a case insurance can play an important part

realizing keenly how much he has missed because of lack of an education, takes out an education-fund policy for his two children. To be sure, wherever there is a risk involved, insurance can be obtained; but the great bulk of insurance sold is in the form of accident and sickness policies and in forms similar to the two last mentioned. There is a variety in such policies, some maturing at a stated age, some maturing in twenty years, some

maturing at death, and so on. The insurance salesman should become acquainted with the person he wishes to interest and with his business. In addition, he should have a knowledge of business conditions in general so that when he comes to talk to his prospect, he can give expert advice on what kind and how much insurance the man can and should carry.

Other kinds of insurance. You know, of course, about insurance against fire, theft, or tornado. Marine insurance, insurance against loss at sea, is the oldest of them all. It existed as early as the twelfth century; but the earliest plan of insurance which was successful as a regular business was that practiced in London at Lloyd's Coffee House in the seventeenth century.

Three kinds of insurance organizations. There are three kinds of insurance companies: the coöperative company, the private company, and governmental insurance. The coöperative or mutual company is a group of people banded together for mutual protection. At stated intervals each person pays in a definite sum of money, depending on the amount of insurance he gets. Then in case one of the members suffers disaster, the entire loss does not fall on him alone but is borne by the entire group through the premiums paid in by them. If there is no loss, the paid-in premiums go back to the stockholders in the form of dividends or are kept on hand as a reserve fund. When the company is private or governmental the loss or excess is assumed by the company or by the government, as the case may be.

Governmental insurance. Compare the insurance rates charged by the government for men who were in the World War with the premiums charged by some well-known private company. Consult men who have governmental insurance and also someone in a local insurance

office. England has offered her people governmental insurance through her post-office system for more than sixty years; but because no agents are used, the people know little about it, and few policies are sold. New Zealand, which has the most successful governmental life-insurance service in the world, has greater per capita life insurance than any other country.

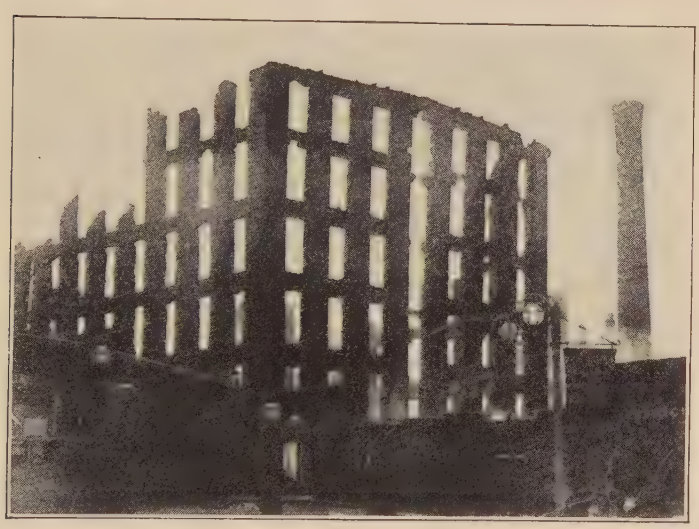
Insurance a matter of education. More and more people are coming to realize the value of insurance of all kinds. Governmental insurance of men in the World War and the tremendous loss through the epidemic of influenza in 1918 popularized life insurance very greatly. Insurance salesmen are actually taking to their prospects a valuable economic service instead of taking something from them, but few realize it. A salesman may go to twenty or thirty persons before he finds one who listens seriously to his explanation of insurance. To be successful an insurance underwriter must be able to stand rebuff after rebuff and still feel that he has a great service to give to men and women and that he must "get it across."

His secret of success. A young man just out of college applied to a life-insurance company for a position as salesman. The general agent looked him over and suggested he would be wise to try another line of work. If any man was ever born *not* to be a salesman, he felt that this was the man. He was sure he would fail. But the young man begged to be given a chance. He began to sell from the beginning. By the end of the first year he had made an amazing success. In a speech before a big insurance convention he told the secret of his success.

"My father died," he said, "when I was one year old. The only estate he left was a life-insurance policy. That policy took care of me during all those years when I could not take care of myself. I should probably have

gone to an orphans' home without it. It gave me my education. For a long time I have been resolved to do all I can to help others get that which has meant so much to me."

He knew at first hand of the great service that life insurance gives, and when he talked to people about it he



AFTER A FIRE

The ruins of a mill where a twenty-million-dollar fire destroyed the heart of a business section. Property owners in this district are firmly convinced of the practical wisdom of fire insurance

talked with such conviction that it made them eager to secure the same service for their own children.

A scientific way to build up an estate. The *Chicago Evening Post* makes the statement that 87 per cent of all estates left at death consist of life insurance. Life insurance is a way to build up an estate that is open to any man or woman who is physically fit. It has the advantage over any other estate in that it may be purchased on the

installment plan. Economists who have studied the question say it is the safest and most scientific way of saving.

Men of high type in the insurance business. Not many years ago it was assumed (with exceptions, of course) that only those men who had made a failure elsewhere took up the business of selling insurance. That is no longer true. Today a great many colleges and universities are offering to their students courses in writing insurance. Men of the highest type are in the profession, organizing and perfecting it.

Education needed. Insurance salesmen (and able women are as welcome as men) need enough education to enable them to meet easily men in every walk of life. The more education they have, the better. Many young college people are preparing to take up special lines, such as business and group insurance. Find out just what these two branches deal with. Certain companies, principally life and casualty companies, conduct schools for the training of their salespeople. These schools are established in various cities and are open without charge to their salesmen. Correspondence courses also are offered by some companies. Detailed information about such schools and courses may be had by writing to some of the large insurance companies. You may be able to get the same information from the local branch offices.

Colleges offering special courses in insurance. Organized courses for students majoring in insurance are offered at many colleges. Among them are the state universities of Texas, Ohio, Michigan, Indiana, Illinois, California, and Pennsylvania, at Howard University in Washington, and at the University of Southern California in Los Angeles. A college training, however, is not an essential of success in the business. Anyone with a high-school education who can meet people, who can talk convinc-

ingly, and who feels keenly that he can really serve people by selling them insurance will succeed.

Two kinds of occupations. There are two occupations in insurance. First there is the producing end, which is made up of the insurance agents, the general manager or agent, and the executive at the home office, who superintends the general agents throughout the country. The beginner usually starts as an insurance agent. Then there is the home-office end, which takes care of the business after it has been obtained. It consists of a large clerical force in a number of departments, the men in charge of these departments, and the executive officers of the company.

Incomes. The salaries paid compare most favorably with those in any other business. The members of the clerical force receive about the same as those engaged in similar occupations elsewhere, but they usually work under more favorable conditions. In the producing end a salesman's salary is just about what he makes it. It should be above the average wage, provided the person is fitted for the work and spends a reasonable amount of time on his job. The income ranges from one thousand dollars to ten thousand dollars, even higher. Someone has said a man gets all he makes, and the sky is the limit. General agents, men who are able to organize and develop a large agency, can build up incomes astonishingly high.

There is a steady demand for salesmen of good personality and special training.

Some advantages of the insurance business. The insurance business is always in season. Little or no capital is required in beginning. It is interesting work because of varied contacts with many people. It is a lifelong occupation. No one is retired because of age. An insurance man is largely his own boss. He keeps his own

hours. This, however, can be a grave source of danger. Why? Other sources of danger are lack of ambition, lack of courage, lack of patience and tact, lack of determination and industry.

Be sure your company is reliable. If you should consider entering this line of business, or if you should take out insurance of any kind, choose a company that is well established, one whose standing is absolutely unquestioned. The cheapness of the premium rate is of secondary importance; security should be considered first.

Find out from some insurance man or some home office how the national government regulates all private companies.

For investigation. Obtain a "dummy" policy from some company and be able to make a report on it to the class. How long is it to run? What is the annual premium required? What special conditions may change the size of the premium? Under what conditions would the policy be of no value, or "void"? Talk to some automobile man and find out how many different kinds of insurance can be taken out on automobiles and by automobile owners. Find out if you can the percentage of houses in your community that are insured. Is this type of insurance, in your opinion, as important as life insurance? Draw up a plan for convincing a friend of yours of the value of some type of insurance.

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CHAPTER XVI

MANAGEMENT OF TEA ROOM, RESTAURANT, ETC.

Housekeeping on a Large Scale

A wide field. Do you like to keep house?

The census of 1930 reported that there were in the United States some

39,538 men and 17,310 women hotel-keepers and managers;
125,398 men and 40,008 women café and lunch-room keepers;
20,383 men and 236,363 women housekeepers and stewards.

The census of 1950 will report more women and probably fewer men in these occupations. Making a home for people is naturally a woman's sphere, and as her business sense and executive ability grow she is going to take the lead in this line of work. Running a hotel or an institution is merely doing on a larger scale what every housewife does daily. The field is a large one, including hospitals, all institutions for children and for aged and crippled people, college dormitories, fraternity and residential club-houses, community kitchens, lunch rooms in large industrial plants, and all restaurants, cafeterias, and tea rooms.

The duties vary largely, according to the size of the institution. In some cases the superintendent, domestic supervisor, or hostess, as she is variously called, has charge of the building, equipment, upkeep, and all housekeeping service. In a large modern hotel there are many heads of departments, from the head waiter, steward, and supervisor of linens to the superintendent of service and the manager.

Future of the work. Does your mother or anyone you know try to keep help in the household? Does she have any trouble in getting dependable maids? The domestic servant is rapidly disappearing both here and abroad. An Englishwoman of some means declared she had found it next to impossible to keep even a cook. She said she could manage her house comfortably with some outside help if she had no meals to prepare; so her family takes its meals outside the home. This is true of thousands of families. In many cases breakfast is served at home, but the other two meals are obtained elsewhere.

How many married women do you know who are working? Ask your parents for additional names. In New York City alone, leaving out the widowed and divorced women, there are, in all the occupations, well over 176,000 married women gainfully employed. Can you see a good reason for the growing tendency toward cooperative living, community kitchens, and eating outside the home? Thrifty, capable housewives are coming into their own as business women. They are needed more and more to do for larger groups those things they now do for their own families.

Training. If a person has the home-maker's instinct — that is, delights in making people comfortable in attractive surroundings — and has had good general training in her own home, is any specialized education needed? If she expects to own her own place of business or become chief executive for a company, technical training is absolutely necessary. She must know food markets and understand buying, she must know the principles of dietetics and cooking, and she must understand finances and the elements of bookkeeping. The person best qualified is one who has come up from the ranks and who realizes that to go farther she must have specific training.

FACTORY WORKERS AT LUNCH

This dining hall in a large factory seats 3400, serves 100 meals per minute, and with three other dining rooms serves 3000 meals at noon each day. (Courtesy of the National Cash Register Company)

She knows what she wants and can go about acquiring it intelligently.

A number of schools offer excellent courses in institutional management. Among them are Columbia University, Simmons College in Boston, the Carnegie Institute of Technology, Cornell, the universities of

RESTAURANT IN A MODERN DEPARTMENT STORE

Washington, Chicago, Minnesota, Illinois, and Nebraska, and a number of the state agricultural colleges. A majority of executive positions in this type of work are still filled on the basis of personality and previous experience, but there is a growing preference and demand for the trained executive. The American Hotel Association, realizing the need for better-trained employees, is cooperating with colleges and universities in giving satisfactory courses to fit students for executive and other

hotel positions. Some colleges and universities coöperate with the association in offering to hotel employees extension courses in hotel engineering and hotel management. At Antioch College in Ohio such a course is carried on in connection with the actual management of college dormitories, dining rooms, etc.

The hours may be long and the work confining, but anyone who makes a pleasant home for a number of people is giving a particularly helpful service. Since there is constant contact with people, the work need never become monotonous.

Financial return. The income from the occupation is satisfactory. It varies greatly with the size and purpose of the individual place. Commercial branches (restaurants, hotels, tea rooms, etc.) and the industrial branches pay somewhat better salaries than the institutional organizations. In institutional work room and board are usually included. Usually the salary is on a par with the results of the organization, ranging from $1500 to $10,000 for executives who are not owners as well. Assistants' salaries range up to $2000.

Tea-Room Management

Large capital unnecessary. You may begin a tea room on any scale. With a very small capital and some ingenuity an old barn or mill or abandoned house may be transformed into a delightful and inviting tea house. Plain, unfinished kitchen chairs and tables may be transformed with paint. Open-stock inexpensive china can be had in a number of attractive designs. If, in a suitable location with surroundings of fresh curtains, immaculate linen, fresh flowers, and friendly hospitality, wholesome, well-cooked meals are served, there will be no lack of

customers. The country girl suffers no disadvantage in comparison with the girl in the city in these days of good roads and many automobiles.

Wise to have a specialty. It is wise to specialize in some one dish: delectable salads, hot muffins and home-made jams, waffles, home-baked pies, etc. Few persons

A TEA ROOM

The direct rays of mellow sunlight add charm to this tea room

who travel are unacquainted with the baked potato of the Great Northern Railroad. It is pictured on its menus and written up in its advertising; and the dining service sees to it that the potatoes are uniformly delicious, browned to a turn, and mealy. Do you know of any restaurant or tea-room specialty? Talk to some manager about this if you have an opportunity.

Another side to it. Running a tea room is not all fun. There are cranky, hard-to-please guests and crankier,

harder-to-please helpers. The hours may be long and confining. It takes "testing and tasting, time, thought, hard work, and no wasting." A good business head, cheery optimism, ability to get along with people, and good health are necessary qualities together with training and a home-making instinct. To guard against early discouragement, the location for a tea room should be made only after careful investigation and thought. After the place has been selected, equipped, and opened for business it is well to be prepared for a period of no profit. In making financial arrangements it is wise to plan for enough money to carry you through at least one year. This is not always necessary, but in many cases the start in this work is discouraging. Rome, however, was not built in a day; but how it did flourish, once it was complete!

Income. Incomes from tea rooms vary from $1000 to $18,000. During the first year, until a dependable trade is established, a manager may do well to break even. Much depends upon location. Many tea rooms carry a gift shop in connection with the serving of food. This serves two purposes: that of entertaining the guests and that of an additional source of income. Others sell home-baked beans, cakes, pies, breads, etc.

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CHAPTER XVII

MERCHANDISING

What the merchant does for you. Let us imagine the breakfast you had this morning: sliced oranges from California, cereal originally from Kansas wheat fields, bacon from Chicago, eggs from a neighboring farm, toasted whole-wheat muffins from Pennsylvania wheat, and cocoa which traveled all the way from Brazil. Did you realize when you sat down at the table that California, Kansas, Chicago, Pennsylvania, and Brazil had all contributed to make your breakfast a pleasant one? If the business and bother of assembling the different things had been yours, very likely your meal would have been a simpler one. Your grocer relieves you of all such trouble, however. Think of this the next time you go into a grocery store.

The shoes you have on may have come from St. Louis, Missouri, one of the centers of the shoe industry in the United States. Where did the leather from which they are made come from? What probably are the original sources of your coat, hat, dress shirt, or hose? A woman goes into a store to purchase a dress. If the store is a large one, she finds an extended array of morning frocks, of street frocks, of dresses for afternoon and evening wear, each one carefully selected and displayed for her choice. Furs are taken from all kinds of animals, cured, treated, and made up in many forms to suit her pleasure. Suppose she needs a dish pan. In a hardware store or a department store she may take her choice of gray, white,

or colored enamel ware, and of heavy, medium, and light aluminum or tin, with different sizes in each material. So with any other articles she may need.

Mutual dependence. The general public and the owners of stores are mutually dependent. The store could not exist without customers, and surely the customer would have a difficult time assembling a meal or outfitting himself, his house, his business, or his farm without the various stores. Buyers for big stores search all over the earth to find things that will be pleasing and desirable to us. Their advertising departments tell us of these things through the newspaper, through the mail, through handbills and posters and attractive window displays. Their office department extends credit to us. The store service department sees that our purchases are carefully wrapped and packed, and the transportation service sees that they reach us safely. When we need such an infinite variety of things, how could we get along without the store?

EXTERIOR OF A LARGE DEPARTMENT STORE

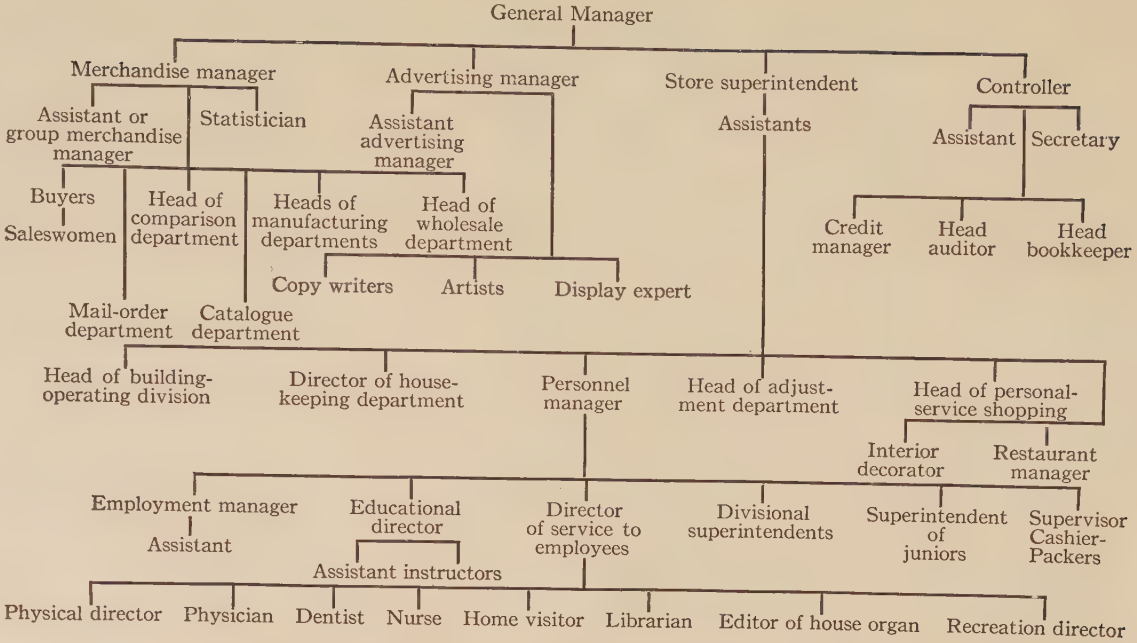
This store has a million and a half feet of floor space and employs an average of eight thousand employees

The big department store a combination of small stores. Make a list of the different stores in your community. By the side of this list write the names of other kinds of stores. A great department store is a combination of nearly every kind of store you can name. It sells everything from Paris dinner gowns to potatoes and thumb tacks. A trip through one of these great organizations, with its hundreds of busy employees and seemingly as many different departments, leaves you rather bewildered and with a profound respect for the general manager. It is in reality a well-organized, smoothly running community, with its post office, its hospital, its school, its recreation and rest rooms and restaurant, its bank, and its wide variety of stores, or departments.

Store organization. Probably no two stores are organized exactly alike. Most of them have grown from small beginnings, and certain duties which we should naturally expect to belong to a certain department are taken care of by an entirely different department. This is true because they were so cared for when the store was smaller and departments were fewer. However, there is a certain similarity in the organization of all department stores. The outline given on the opposite page is typical of the more progressive store organizations.

The general manager. Over the entire organization is its general manager. It is his business to see the business as a whole, to solve its big problems, and to determine its policies. In his hands lie the growth and future of the store. He must be a man of unusual ability, of thorough training, and successful experience. In large companies his office is entirely administrative ; but in smaller stores he usually fills some other office, such as that of advertising manager or store superintendent. Sometimes, instead of a single general manager, there is a board of managers.

Typical Store Organization [1]



[1] From *Positions of Responsibility in Department Stores and Other Retail Organizations*, Bureau of Vocational Information, New York City.

Department stores are usually divided into the following four sections, with managers and assistant managers in each section: (1) Merchandise, (2) Advertising, (3) Store service, (4) Accounts.

The merchandise section. The merchandise manager is in charge of what is probably the most important office of the business except that of general manager. It is his job to get the merchandise and see that it is sold. Under his supervision are the buyers for all the departments. He, with these assistants, assembles the materials from all over the world, sees to their storing, marking, arrangement for display, and, in a large measure, to the selling of them all. He must allot to each department a definite, carefully reckoned budget and see that it is wisely spent. Every business must have its merchandise manager or general purchasing agent, and there are few positions of greater responsibility and importance. In the minds of people with department-store experience the best future, the greatest responsibility, and the largest salaries lie in this field of merchandising.

The buyer. Working directly under the merchandise manager are the buyers for the various departments. After they receive their budgets the responsibility of making their special department succeed rests with them. Usually a certain amount of money is given the buyer with which he may purchase outright. Beyond that he may select and bargain for lines of goods, but the transaction must be approved by the merchandise manager before it can be closed. Think of the variety of things to be purchased! See if you can add to the following list: blouses, coats, skirts, kitchen ware, house furnishings, gloves, hosiery, infants' wear, knit underwear, handkerchiefs, jewelry, millinery, neckwear, toilet goods, toys, pictures, paints, womens' wraps, shoes, goods by the

yard, furniture, rugs, bedding, and linens. For all these things except the last five the positions as buyers are about equally distributed between men and women. The last five lines are practically closed to women buyers. Can you account for this? Report what reasons you can get to the class. Since about 87 per cent of the purchasing

SUMMER CAMP MAINTAINED BY A LARGE RETAIL ORGANIZATION FOR ITS EMPLOYEES

throughout the country is done by women, the number of women buyers is likely to increase as sales increase.

The buyer is not through, however, when the merchandise has been secured. He must keep records in regard to his purchase and handling, even though more detailed records are kept in the office department. He usually supervises or suggests advertising for the sale of merchandise in his department. He must see to its proper display and instruct and train the salespeople who have direct charge of its selling. Occasionally he comes in contact with a customer when he is called in to assist in an

important sale. He must know at any minute exactly what stock he has on hand, when sales are necessary to prevent a surplus, and where, when, and how much to buy. One buyer in a San Francisco store says he buys merchandise and manages his department exactly as though he were head of a small specialty shop of his own. Many buyers, both men and women, after years of successful experience do go into stores of their own.

The life of a buyer is a busy, interesting one. The hours are longer than those of persons in minor positions, but that is true of all places of responsibility. Buyers for some departments, such as the notion and button departments, have a vast amount of detailed work; and yet in those departments it is almost impossible to show large returns. Can you imagine people getting enthusiastic over a sale of pins, thread, needles, and darning cotton? However, successful buyers declare the advantages of their work far outweigh all disadvantages. The responsibility itself, the showing of growth in returns, the opportunity to travel, the contact with busy, interested people, the live, active work, make the buyer's position one of the most desirable in the whole organization.

The salary of a buyer varies greatly, as most buyers work on a basis of salary plus commissions. These commissions sometimes run very high, making the total income from $3000 to $15,000. It is not considered unusual for a buyer in a ready-to-wear department of a large store to make $12,000. Most assistant buyers are promoted from being heads of stock or salespersons. Their salaries range up to $5000.

Special departments. There are certain special departments under the merchandise section. One important but seldom-thought-of part of a store is the comparison department. It is the business of this department to

keep the merchandise manager and, through him, the buyers, informed of what other stores are doing in the way of prices, novel displays, clever advertising, special service, etc. This is done very largely through comparison shoppers. In the larger stores there is an executive who directs the activities of a staff of such shoppers. A successful comparison shopper must have a good education, must have patience and tact, must be a keen

THE PUBLIC DINING ROOM IN A LARGE DEPARTMENT STORE

observer, and must possess a good memory. Since her reports are made in writing, she must be able to write clearly and forcefully. For what positions might such work serve as training?

Then there is the shopper who in response to requests by mail or telephone does personal shopping for busy mothers and other persons who find it inconvenient to make a trip to the store. Such people are called personal shoppers. Anne Sawyer, the advertised personal shopper for a department store in Cleveland, Ohio, has a wide coterie of friends gained by her pleasant telephone voice

and her efficient, friendly service. One woman for whom she had shopped on a number of occasions called one day to take her out to luncheon, only to find that there were eleven Anne Sawyers!

One of the more recent developments in the department store is the increasing use of style advisers or consultants. Many persons want very much to dress in good taste and in the prevailing style, but do not know how to do it. When they go into a store they are bewildered at the variety, kinds, and colors of the garments offered them, and in a vast majority of cases will accept gratefully expert advice as to what is becoming and proper. This is a thoughtful personal service which will tend to make more popular the ready-to-wear departments and to give them the individual appeal now emphasized by the small specialty shops.

The advertising department. The advertising department is a vitally important one. Through its various activities the merchandise of the store is made known to the public. Some idea of its importance may be had by observing the department-store advertisements in the daily newspaper. About what percentage of the advertising space is taken by department stores? Compare this with the amount of space used by them in the Sunday edition of the paper. Other means of attracting and interesting customers are taken up in the discussion of advertising as an occupation (p. 153), and need not be given space here.

The store service section. Under the store service section there are three distinct divisions: (1) that which looks after the housekeeping and upkeep of the store, (2) that which sees to adjustments and gives personal service to the customers, and (3) that which cares for the needs of the employees.

The first of these not only looks after the physical upkeep of the building (its cleaning etc.) but, under the purchasing agent, looks after all office supplies and equipment and all wrapping materials.

The personal service given to patrons of the store includes the Adjustment Office, the Information and Lost

INTERIOR OF A COUNTRY GENERAL STORE

Progress cannot eliminate the old-fashioned country store, where hardware, groceries, dry goods, and notions are sold

and Found Bureaus, shopping for and with customers, arrangements for sending exhibits of clothing out of town to colleges and schools, selling theater tickets, arranging for trips by rail or water, and maintaining a post office. A large staff of tactful, trained, capable men and women is needed in these various departments.

The personnel department is one of the later developments of department-store life. Instead of the old style of "hiring workers," employment managers now attempt

in various ways, through trying out in different positions, through tests and examinations, to select the right man for the right job. In what ways is the employee benefited by this? How is the employer benefited?

For this department many of the larger stores employ an educational director whose duties are

1. To conduct classes in English, geography, writing, and other school subjects, thus maintaining a continuation school for junior employees;

2. To instruct adult employees in their duties and to give special technical training for those positions which require it, such as that of elevator operators, floor managers, etc.;

3. To raise standards of efficiency among all employees. This is done by teaching such subjects as textiles, salesmanship, rapid calculation, etc.

Then there is the welfare director, who looks after the health and well-being of the employees. This director is in charge of the hospital, of the rest and recreation rooms, and, in some cases, of the restaurant and the store newspaper or magazine. You can see that there is need of several efficient assistants in this department. Summer cottages and camps are maintained by some stores for the benefit of their employees.

The work in the store service section is widely varied. In the housekeeping and the upkeep of the buildings qualifications are needed quite different from those necessary in the personnel department. Those in charge of the former receive salaries varying from twenty-five dollars to forty-five dollars per week. The salaries in the personnel department have a wide range; but as the importance and value of the work come to be recognized, better salaries will be offered. The duties of those in the personnel department are many, ranging from leading

a choral club to conducting classes and interviewing all applicants for positions. College training is very useful for this work. It is required by some firms, but experience counts as well. To be successful a personnel director should have a genuine liking for and understanding of people, an ability to judge, and a lot of common sense.

Most personnel directors are enthusiastic about their work. They are giving visible constructive service not only to the store which employs them but to individual employees as well. The work is varied, and the field is a comparatively new one and not overcrowded. There are disadvantages. For instance the hours are long and the indoor work is confining. There is a good deal of nervous strain connected with it. Unless the company is a progressive one the director is likely to meet with a lack of coöperation, which is often discouraging.

The accounting section. This section of the store does the bookkeeping, takes care of credit, collection, bills, and accounts, all involving a vast amount of clerical detail. Here the controller, the office manager, the credit manager, and the head accountant hold the highest positions.

The work in this department is practically the same as similar work in any business organization. A fairly good idea of the nature of the work, advantages, disadvantages, education and training necessary, salaries, etc., will be found in Chapter XIX, "Secretarial Work," and Chapter XX, "Accounting."

Why cash-and-carry stores can sell for less. Our cash and-carry stores avoid the greater part of the work necessary in the accounting section of a department store. Find out the points of advantage in maintaining a cash-and-carry service in a grocery store or in any chain-store system.

It will be interesting to observe over a period of several days, including Saturdays, the number of customers entering a cash-and-carry store and the number entering a store which keeps charge accounts and has delivery service. What reasons can you give for the greater cost of articles in the latter store? A package must be wrapped more carefully and securely when it is thrown in with hundreds of others for delivery in a large city. A number of big department stores find it necessary to maintain subdelivery stations in different parts of the city. One such company in Cleveland, Ohio, declares it costs the company an average of twenty-five cents for the wrapping and delivery of each purchase.

Education and training necessary. This is one business where, in general, experience is more necessary than education. To advance in a department store a person must have successful experience behind him. However, if he desires to be promoted to any of the better positions, he should never leave school with less than a high-school education. Merchants are more and more concerned with the educational training of their employees. They realize the greater value of better-educated, better-trained salespeople and are endeavoring to get them. Many of the more progressive stores employ an educational director and assistants for the further training of their present employees. One New York firm states that after such educational training over a period of eight years their sales showed an increase of 82 per cent with an increase of only 19 per cent in the sales force.

Mrs. John Genkins asks to see some hose supporters for her eight-year-old daughter. The sales clerk shows her two pairs of supporters made by two different firms. One is priced thirty-five cents, and the other fifty cents. They are constructed exactly alike and are apparently the

same. If the sales clerk is a good one she will be able to explain that the difference in price lies in the better rubber used, in the stronger, non-rusting clasps, in the sturdier material, and in the better workmanship; and Mrs. Genkins will go away with the fifty-cent hose supporters. If the clerk does not know why there is a difference in price of fifteen cents and is indifferent about making the sale, Mrs. Genkins may take the cheaper pair or she may go to another store where the sales clerk does know why things are priced as they are. Anyone can hand over an article which is marked seventy-five cents and receive the seventy-five cents in exchange for it; that is not salesmanship.

ANOTHER FORM OF BUYING AND SELLING

A farmer drives in with his produce fresh from the vines

In department-store work, as in any business, education is a great help. Undoubtedly a college education should shorten the period of training necessary to advancement, but it must be remembered that this does not take the place of experience.

Even with a high-school education it will probably be necessary to begin work in any store in a minor position, such as mail-order clerk, salesperson, general clerk, office

boy, stock girl, file clerk, or delivery-wagon driver. In any one of these positions one can learn the store, get its atmosphere, something of its policies, and show his own personal qualifications, earnestness, ability, and intelligence. If you should enter with the intention of becoming a buyer or manager of a definite department, it will be wise, after several months have passed and you have tested yourself out, to mention your ambition to the store manager or to some other authority. In this way you may enlist an interested watchfulness over your efforts and opportunities may be opened for you. Qualities necessary to advancement are initiative, capacity for hard work, and a certain amount of aggressiveness.

Small retail stores. A large department store is an interesting organization, furnishing employment for almost every kind of talent and training. However, only about 3 per cent of the retail selling is done by the combined group of large department stores, mail-order houses, and chain stores; the other 97 per cent of retail trade is carried on by the smaller, individually owned shops. However, the growing strength and popularity of the various kinds of chain stores promise to lessen this proportion. It is not unusual for the owner of a small store to sell out his stock, rent his shop to a chain-store corporation, and become manager of the company's store.

Suggestions. It would be interesting for the members of the class to list the qualities they believe most desirable in a young person entering the merchandising field. After listing these qualities a committee from the class could interview a half dozen merchants in various types of stores and find out what characteristics they like best in the young persons who work for them.

If this field interests you you may be able to obtain an after-school job in a store and learn more about it.

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See also in the general bibliography (p. 381) Forbes, *Men who are Making America.*

CHAPTER XVIII

PHARMACY

Some things Charles learned about pharmacy. Charles Morison, fifteen years old, had to earn his own living and help support his mother. He wanted to complete high school and go on to college if possible. He went to the school counselor and asked advice as to how he might work his way through high school. When the counselor learned that Charles was enthusiastic about chemistry and botany, he suggested that he get a job in a drug store on Saturdays and before and after school. Charles was only mildly interested until he had read some articles which the school counselor gave him. Some interesting but not especially important facts first caught his attention. He learned that for a long time sugar was used exclusively as a drug, and that later it was put with other drugs to make them more palatable. We all know the sugar-coated pill! From this evolved the modern delicious chocolates and bonbons that we always find in a drug store. He learned that lemonade was first prepared by an Italian pharmacist as a medicine and that its frozen form as sherbert was a later invention of a Florentine pharmacist. Cosmetics and perfume were originally prepared and introduced by pharmacists.

"Ho!" thought Charles, interested, "these people who make fun of a drug store for selling all that cold-cream stuff, and soft drinks and candy, don't know they were all sort of born there!"

When he looked over the long list of eminent chemists

who had made remarkable discoveries while working as pharmacists, he thought of the druggist behind his counter with an added respect. For instance, Scheele, a Swedish pharmacist, discovered oxygen back in 1771. Other pharmacists have discovered quinine, iodine, morphine, and bromine. He learned that within the past fifty years greater progress had been made toward the conquest of disease than had taken place in the preceding fifty centuries.

Charles became so interested that before he went to bed that night he wrote to several pharmaceutical colleges asking them for their catalogues.

And was he happy when two days later he secured a job in a drug store!

Work of a minor junior clerk. You will want to know what kind of work Charles had to do. He swept floors, washed windows, sterilized bottles, and acted as errand boy and general handy man about the store. Occasionally he sold merchandise, but as a rule this was done by a more experienced clerk. He spent every spare moment behind the scenes watching the pharmacist, helping him when he was able to do so. He learned many things about the profession of pharmacy.

Occupation one of responsibility. He learned that the pharmacist and the physician are co-workers. Each is a specialist in his field — the pharmacist, in all that relates to the production and compounding of medicines; the doctor, in the application of those medicines in the treatment of disease. The work of the pharmacist is of such importance that in addition to his very thorough training he must be scrupulously clean, absolutely reliable, and painstakingly exact. A doctor's prescription may call for one fourth of a grain of the deadly poison strychnine. That amount of strychnine is enough to cause a

violent and agonizing death; but, apportioned exactly into thirty doses, mixed with other ingredients, and taken over a period of eight or ten days, it will serve as a nerve tonic. Possibly a dozen times a day a human life lies in the hands of the pharmacist.

Within the four walls of the drug store were drugs from all corners of the earth, gathered to meet man's needs. As Charles looked around the shelves of prepared remedies, the many toilet accessories, rubber goods, candies, magazines, the gleaming soda fountain with its chromium and red-leather chairs and stools, he realized that the profit on many of these things was large. He thought soberly of the importance of the druggist himself and of the high responsibility demanded of him, and he began to look forward to the time when he, as a registered pharmacist, would own his own store.

Most drug stores independently owned. Charles knew that the store in which he worked was one of forty in the city in which he lived that belonged to the same chain; he learned, too, that of the 59,000 drug stores throughout the country 93.6 per cent are independently owned.

Salary. He found out that managers of drug stores earn from $45 to $75 a week, that $3500 is the average salary, while a manager's assistant gets an average of $2500. Both must be registered pharmacists. Apprentices, studying for their examination in pharmacy, earn some $20 per week plus their commissions.

Registered pharmacists in hospitals, where the hours are not so long and the job is seldom a seven-day-a-week one, get from $50 to $150 a month. The majority of the few registered women pharmacists are employed in hospitals. Executive pharmacist positions in manufacturing plants pay from $3500 to $5000.

The Federal government employs pharmacists in various capacities, paying them from $150 to $300 a month according to the relative importance of the position and to the length of service. A letter to the Bureau of Medicine and Surgery, Navy Department, Washington, D.C., will bring you a booklet on the hospital corps with its necessary attending pharmacist.

Education necessary. After Charles had decided that he was going to be a pharmacist, he found his school work far more interesting. Chemistry and physics were used every day in the store. He frequently brought some practical problem to the class in biology, concerning especially the bacteriological and health phases of it. Latin had a new zest for him after he learned that all prescriptions are written in that language. English and arithmetic he saw were important. In fact, he was surprised at how much practical help a high-school course can furnish.

After finishing high school, for one year Charles worked full time in the same drug store. Then he entered a pharmaceutical college at the state university to take the pharmacy course. His four-year course comprised the standard collegiate training in the arts, in the fundamental sciences, and in his chosen field of pharmacy.

At the end of that time, because he had already served his required two years as an apprentice in a drug store — that one year before he entered college and during four summers, — Charles took and passed the state board examinations.

His ambition was realized. He was a duly registered pharmacist.

Future of the work. Charles had made a fine record at college, and he now found a number of interesting opportunities to enter various fields of pharmacy. One of

these was in a purely prescription pharmacy, three were in the laboratories of large pharmaceutical manufacturing plants, one was with a wholesale drug house. However, Charles not only knew his drugs by this time but liked the business end of a drug store. He had discovered during his training that he knew how to buy wisely and how to display his goods. He knew how to work rapidly, quietly, and efficiently. He was a good salesman. A man interested in his development lent him $1500, and Charles carefully invested this amount in a store of his own. Today he employs an assistant and three clerks in his establishment, and is a happy and respected member of his community.

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CHAPTER XIX

SECRETARIAL WORK

Two girls, Ruth Brown and Mary Metz, decided that they preferred office work to any other kind of job, because they had learned in a study of the different vocations at school that there they would have regular hours, no night work, annual vacations with pay, and Saturday afternoons off.

"I'll be sixteen next month," declared Mary; "then it's me for a business college for six months and then a job!"

"But aren't you going to finish high school?" asked Ruth, in surprise. "You can study stenography and typewriting there in your junior year, and it won't cost you anything. Besides, you know Miss Williams said a stenographer ought to have at least a high-school education. You've got to know how to spell and how to write a good letter. And you've got to know a lot of English — how to punctuate and everything."

"Pooh! I know loads of office girls who didn't finish sixth grade even, and they are working and making good money. If I don't know how to spell, I can use a dictionary, can't I? As for English and punctuation, you can't eat 'em or wear 'em, so what good are they? You stay on, Miss Stick-in-the-mud; but when the law says I can stop, I stop. And you watch my dust!"

Become an expert in your line. That was five years ago. Mary did take a short course in a business college, and did get a job. She has the same kind of job today, that

of typist; but this is the fourth office she has been in. You know a girl gets tired of sitting at a machine all day copying one page after another. She gets to feeling that she is part of the machine, just punching keys hour after hour. Since she never has a chance to use her head or do anything about the office that is interesting, she is likely to become dissatisfied and begin hunting for another job. That does little good, however; for unless you have something worth while in the way of education or training to offer, you can't expect much of a job. Mary's stenographic training cost her little time or effort, so it is rather a poor thing and pays her poorly.

A boy can learn to run an elevator in two hours; but he gets an elevator boy's pay. A young man can learn to be a motorman on a street car in one or two weeks, and he will receive a motorman's pay. A college graduate may enter a medical institution and in four years qualify as a doctor of medicine, and he will receive the average doctor's income. The same doctor may spend additional years in study, and he will receive a specialist's income.[1]

Mary gets a salary of $85 a month. By the time she has paid $35 for board and room, paid her car fare, bought all her clothes, paid for her laundry, etc., paid an occasional dentist's and doctor's bill, she has very little left for a savings account or to tide her over in case of illness.

Just yesterday this took place in the office where Ruth Brown is working. "Miss Brown," her employer said, "I find you can write as good a business letter as I can. Now here is a letter from our Mr. Grace in Milton. I wish you would write and tell him the new car will be there within ten days. Then see that that advertising matter is ready; and will you see that it gets off to him, please?"

[1] From Roger W. Babson's Making Good in Business. Used by permission.

Does Ruth's job look any more interesting than Mary's? Her monthly salary at the end of two years with this company is $125. Mary was right when she said you could not eat or wear English or proper punctuation, but you can surely make them serve you to advantage in other ways. Had you thought of that?

A Y.M.C.A. WINDOW ADVERTISING ITS SECRETARIAL SCHOOL

The job of private secretary. Before many years pass, if Ruth continues to show genuine interest in her work, if she is loyal and has tact, if she has good judgment and continues to give cheerful, accurate service, her employer is going to turn over to her all the routine work of the office. She will be opening his business mail and taking care of all correspondence except that needing his special attention. She may be dictating to other stenographers. In other words, she will be her employer's private secretary, with a salary of not less than $1500, possibly much

more. The salary depends upon the size of the company for which she is working as well as upon her own ability. Some private secretaries, both men and women, get as much as $10,000 a year.

Qualifications necessary for advancement. How about Mary? If she stays in office work she will still be a typist at possibly as much as a hundred dollars a month. However, if she has realized the mistake she made in leaving school at the end of the ninth year and has attempted to make up what she missed in a night school or continuation school, she may have a better job. More depends on the girl — whether or not she is capable and ambitious and has a pleasing personality — than upon the beginning of her education. A person may be highly educated and yet, because of his nature and his attitude toward life, be a complete failure; but, all things being equal, the boy or girl with good education and training has a very great advantage over one with little of either.

Don't stop halfway. There is always an opening for a trained stenographer. There is a constant demand which has never been fully met. If you are going to be a stenographer, be an expert. Do not take a short course. It will hamper you later. Finish high school. College work will help you a great deal if you expect to continue to advance. After you are well prepared you should choose your employer carefully. You will be able to do this because of the demand for capable, trained stenographers. In a number of vocations youth is more or less a handicap. If you were deciding what doctor, or dentist, or lawyer to go to, you would probably prefer a man of thirty or more years of age. But youth is no handicap in secretarial work. When President Wilson was in the White House he chose a young man of twenty as his personal secretary.

Stenography a key to many things. A good stenographer has in his head and at his finger tips the means to go through four years of college. He has the key to a number of useful and interesting vocations. No occupation offers wider opportunity for advancement. It may be the door to almost any vocation, provided the stenographer

COMMERCIAL DEPARTMENT IN A MODERN HIGH SCHOOL

Many young persons are prepared in high school for office positions. (Courtesy of the John Adams High School, Cleveland, Ohio)

has the necessary education, ambition, and ability. There are bankers, railroad officials, advertising managers, and many persons in government positions who began as stenographers. Through the office of private secretary women have become business managers or partners in business. To be sure, this does not occur often, but it has happened and is likely to happen again and again.

Which will be the wiser choice? Probably you can help Mr. Wharton to solve a problem that is facing him. He

has to select a new manager. His choice lies between two men both about thirty-two years of age. One, Mr. Wingard, has had three years' special training in business administration in Harvard University and has had two years of successful experience. He is highly recommended. His thorough efficiency and progressive leadership set a new standard for his company last year. The other, John McCarthy, is Mr. Wharton's private secretary. He knows the business from the basement up. He knows the policies of the president; in fact, he helped to form some of them. He has wise judgment. Twice when Mr. Wharton was away on a prolonged trip, he was left in complete charge of the office; and on one occasion he handled a case that came up for immediate action so efficiently that his salary was promptly increased at a meeting of the directors. Which man should you choose for manager? Be prepared to give definite reasons for your choice.

There are drawbacks. Stenography has its disadvantages. There are offices that are not cool, airy, and well-equipped. There are crowded, poorly lighted rooms that are far too noisy. However, a well-trained stenographer should refuse to work in such an office. There are cranky, hard-driving men who are employers. There is always a possibility of overtime and even night work. The beginning salary is rather low. The government employs a vast number of stenographers and typists, but the monthly wage is a modest one; the maximum salary for a private secretary to a high government official is only $2000.

Opportunity for service. It is in the hands of a secretary to accomplish much in the way of service. Because of her sense of neatness and order, her quiet efficiency, her employer is able to accomplish more in his larger sphere.

Mr. Church in his book *The Training of a Secretary* (J. B. Lippincott Company) says "there is nothing in a busy person's life which gives him or her greater satisfaction and comfort than the help of an able, loyal woman, strong mentally, morally, and physically, neat in person, quietly dressed, ready at any moment to attack any work with a smile."

Assignment. Make an outline of this chapter, filling in the proper information under the following topics:

Actual work done
Advantages
Disadvantages
Education and training
Other requirements
Future of the work
Salary

Add any information you can that is interesting. Do any of you know a man or woman who rose to a higher position through stenography?

REFERENCES

If this chapter has created an interest in secretarial work read at least two of the following books:

CHARTERS, W. W., and WHITLEY, I. B. Analysis of Secretarial Duties and Traits. Williams and Wilkins Company, Baltimore.

HAMMOND, E. J. How to become a Company Secretary. G. P. Putnam's Sons, New York.

KILDUFF, E. J. The Private Secretary, His Duties and Opportunities. D. Appleton-Century Company, New York.

TAINTOR, SARAH A. Training for Secretarial Practice. McGraw-Hill Book Company, New York.

Turn to the general bibliography and examine, especially, Adams's *Women Professional Workers*, Brewster's *Vocational Guidance for the Professions*, and Rexford, Smith, Sellin, and Frabbito's *Beyond the School*.

PROFESSIONAL OCCUPATIONS

The time has passed when any sharp line can be drawn between the so-called professional field and the agricultural, industrial, and commercial occupations. In virtually every line of work a man may attain a level of professional service provided he ranks high in (1) general education, (2) intelligence, (3) culture and character, and (4) specialized training for his work.

However some 94 per cent of the people employed in the United States are employed as nonprofessional workers in agricultural, industrial, and commercial fields, and as advisers in these occupations. The number of women and men needed as consultants in professional fields is limited. In general, too, the so-called professions are overcrowded; and they are overcrowded chiefly because of drifters — people like Max Wasp. He finished high school, and then went on through college, taking the straight classical course, that leading to a Bachelor of Arts degree. He did this not because he had thought carefully about what things he wanted to get and what he wanted to do; he drifted along, following the line of least resistance. As a result, when he had finished high school and four years of college he had no definite aim. He was as uncertain about what he wanted to do, and apparently as much at sea about the kind of position he could most successfully fill, as he was the day he entered kindergarten. He felt unsuited for practical work. He rather liked to study, so drifted into law, and wonders now if he shouldn't have been more successful in the ministry! See that you are not in his position.

However, if you are keenly interested in one certain profession and yearn to enter it as your life work; if, after studying about it in every detail and studying yourself just as thoroughly, you want to make that profession yours, go into it by all means. Every profession has vital need of earnest, able, vitally interested newcomers. Choose your occupation only after deliberate honest thought; then let few things stand in the way of your getting ready for it.

CHAPTER XX

ACCOUNTING

Suppose a man comes to you as a director in a bank wanting to borrow five thousand dollars. He owns a department store and brings with him a detailed statement of his financial condition signed by his head bookkeeper. You know the man has the liking and the respect of his community. Just what shall you do about the loan? Shall you accept this financial statement as it is? Will a notary public's signature help in the case?

A big lumber company has an opportunity to buy out a smaller company for sixty-three thousand dollars. Before Mr. Mackey, the owner, can decide whether or not to make the deal, he wants to find out the financial status of the lumber company. But this is not all. What about his own financial condition? Can he afford to make the purchase? It is an amazing fact that a big percentage of business men do not know the fundamental facts of their own financial affairs. Before Mr. Mackey can make up his mind wisely about adding to his plant, he must know exactly where he stands financially. How is he going to do it? Shall he accept his own head bookkeeper's statement? If you know anyone who is the head of a business, ask his advice.

A furniture company goes bankrupt. It owes large sums of money to two different banks, is in debt to four furniture manufacturers, and owes a big bill for furnace coal, besides some minor debts. There are some assets. What percentage on the different debts is the company

going to pay? How is that to be determined, and by whom? What other duties does this person perform?

The work of an accountant. There is a profession that takes care of just such work. It is a public accountant's business to record specialized information, such as the financial history of the firm, its present financial condition, its relation to creditors and debtors, its stockholders or owners, and any such information that the owners or stockholders, the debtors and creditors, may need to know. Auditing is one of the important things the accountant does. He or she is called in to go over the records and financial books of a company to make sure there are no errors and no dishonesty. Here a public accountant is usually preferred. For the same reason, a banker or other person who lends money wants a financial statement checked by a disinterested person, so a public accountant is called in. He is employed by women and men with large incomes and by many business firms to make out income-tax reports. A business man frequently employs a public accountant to plan a system of books that will give him the information he wants; for instance, concerning costs of manufacturing or of sales records. After the system has been planned and is in working order, ordinary bookkeepers may do the rest of the job — that of "keeping books" day by day.

Opportunities for employment. The United States government service offers a rapidly expanding field for trained accountants. The different income taxes, Federal and state, require an ever-increasing staff of such men and women. Not nearly enough are qualified to perform the service, which only trained accountants can give.

Education and training. You can see that this is a really important profession. The accountant must be thoroughly trained and have an unusually good head in

order to succeed. The government realizes how much harm an unqualified and dishonest accountant can do; so it requires of anyone entering the profession, as it does of doctor and lawyer, a strict state examination. Granting of the license of Certified Public Accountant (C.P.A.) is

THE ACCOUNTANT

An accountant offering suggestions and advice to business officials

based on four things: (1) proof of a substantial school education — high school or its equivalent; (2) sound moral character; (3) passing of state examination; (4) in many states a record of from one to three years of accounting experience. The examinations are given twice each year at stated intervals. Can you find out the specific times?

Many who today are accountants began as book-keepers, and by continued study and improvement have

advanced to the higher position. A public accountant must know how to draw up and present an account. He must know a good deal of law, such as the law of contracts, the law of partnership, all tax laws, etc. He must know business. Besides these things he must be able to write vigorously and convincingly. He needs his knowledge of English here. Mere accuracy of statement is not enough. A competent bookkeeper can give that. The accountant must be able to draw conclusions and to suggest advice. He is a sort of consulting business engineer.

Schools. A number of correspondence schools offer courses in accounting. Some of them are excellent; others are of little value. There are various business schools and Y.M.C.A. schools of commerce. Nearly all the bigger universities offer courses in accounting, and there are a number of private schools that are exceptionally good.

Anyone who wishes to select accounting as an occupation should have a natural liking for arithmetic and should take all the mathematics available in his school work. English, too, is of great importance. If the junior or senior high school offers courses in bookkeeping, you will have an opportunity to try yourself out to see if you are fitted for an accountant's position. Many junior high schools have savings banks; if you are interested in accountancy, get into the bookkeeping department of your school bank. If there is no such bank in your school, you might talk with the principal about organizing one.

Personal qualifications. What sort of person is most likely to succeed as an accountant? He must be absolutely honest — "on the square." There have been too many quacks in the past who have taken advantage of the ignorance of a firm about its actual financial condi-

tion. He must have patience, tact, and adaptability. He must be always accurate. Last but not least, he must have a scientific mind; that is, one that is by nature orderly and that takes nothing for granted.

Few women accountants. The accountant usually has to work long hours, frequently at night, in surroundings that are not always pleasant. His work is hard and confining. Frequently he must travel. However, he gets an opportunity to study various types of business at first hand and comes in direct contact with the men at the head of such business. Such work has hardly been open as yet to women accountants. It is rather difficult for women to establish themselves in the profession, although there are a few very successful ones. In 1934 there were only one hundred and five women who bore the title C.P.A. The number of women engaged in preparation for the accounting field increases year by year. So far the majority of them find employment as bookkeepers or officers of corporations. More and more positions are open to them in government work and in large accounting organizations.

What is he worth to you? If, in going over the records of your company, a public accountant found you would be able to make a great deal more money by discontinuing one line and putting most of your effort into another, or if he found you had a man on your staff who had been taking money over a period of years, or if he suggested a decision that would put your business on a far better financial footing, what should you feel like paying him for his service? His work may mean ten thousand or a hundred thousand dollars to you, or even more.

His salary. A qualified accountant usually charges from $25 to $100 a day for his services. A student in accounting will earn from $1200 to $3000 per year. In most schools his classes are held in the evening (until 10.30)

so that he may gain his practical experience, and incidentally earn a living, through the day. Upon finishing his course he seldom starts in with a salary of less than $2500. After that his salary varies. Managers of branch offices receive from $6000 to $10,000. Certified public accountants, who are usually free-lance men, earn from $3000 to $30,000. Some earn as high as $100,000.

The future of the accountant. The field is far from crowded. The Securities and Exchange Act of 1933 and 1934 caused an increased demand for public accountants. Probably not more than one business out of three of small or medium size has yet adopted the practice of engaging public accountants to conduct regular audits or investigations. Consequently this undeveloped field is immense. Then, too, there are wide opportunities in the regulation of the public finances of towns, cities, and states, known as municipal accounting.

REFERENCES

Exact information can be had by writing to the American Institute of Accountants, 135 Cedar Street, New York City. The men in charge will be glad to recommend textbooks and other reading matter. You might examine the following books:

BASSETT, WILLIAM R. Accounting as an Aid to Business Profits. A. W. Shaw Company, New York.

MCCLELLAND, F. C. Office Training and Standards. A. W. Shaw Company, New York.

WADE, HARRY H. Fundamentals of Accounting. John Wiley & Sons, Inc., New York.

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CHAPTER XXI

ARCHITECTURE

Why employ an architect? Mr. Brown has purchased a lot in a good location and desires to build a house. He has fifteen thousand dollars to spend for it. What should be his first item of expense? Probably some would say he should first have the basement excavated. Possibly some people would proceed in that way, but not those who use good judgment. The first expense should be for plans by a reliable architect. No one can build successfully unless he has a plan covering every detail of the structure. Mr. A purchased a fine old house built more than a century ago. The house was not suited to modern use. In order to save money he decided to plan and supervise the remodeling himself. He soon found that he knew very little about building and that he was taking the advice of first one person and then another, often making changes that were not necessary and spending much money that he should have saved. Finally the house was finished, but Mr. A had learned a costly lesson. He declares that any remodeling he does in the future will be according to the plans drawn by a competent architect, who will supervise the work.

In years past the architect seldom worked on anything but the larger building operations. Today, however, he is planning dwelling houses of moderate cost and even planning towns or sections of towns. This is probably for two reasons: first, people are learning that it is wise to have an expert plan their houses or districts; and

second, people are being educated through the schools and in many other ways to appreciate beauty. Every real architect desires to produce beauty and service. Of course a building, no matter how beautiful, is useless unless it does well the job for which it is planned.

OFFICE OF THE SUPERVISING ARCHITECT OF THE UNITED STATES GOVERNMENT

The more reliable magazines which deal with home building and decoration recommend strongly the employment of an architect in every building operation of any importance.

What the architect does. It is the duty of the architect to plan a building and supervise its construction. The contractor is responsible to him. Nothing should be put into a house until it has been approved by him.

Education necessary. This being true, it is clear that the architect must be a man of wide knowledge. He must

know not only art and architecture as they have been developed from earliest times, but he must know also engineering, which is a modern development. He must know masonry, carpentry, plumbing and sanitation, heating, ventilation, and many other phases of the building trades. His position is an important one.

CLASS IN MECHANICAL DRAWING

The architect may get his inspiration for great accomplishment in a mechanical-drawing class in a public school

To be a really successful architect he should be a college graduate, having completed a college course or a postgraduate course in architecture. There are fourteen schools in the United States which form the Association of Collegiate Schools of Architecture. Among these are the Massachusetts Institute of Technology, Columbia University, the University of California. A letter to the dean of any one of these schools will bring information concerning courses and names of other colleges of similar standing.

WOOLWORTH BUILDING

Through the arch of Municipal Hall

Many young persons get employment as learners or draftsmen in offices of architects and study architecture while doing practical work. Their income ranges from $5 to $75 per week, the amount depending on experience and skill. An architect in charge of an office frequently gets as much as $8000 a year. Those who have attained

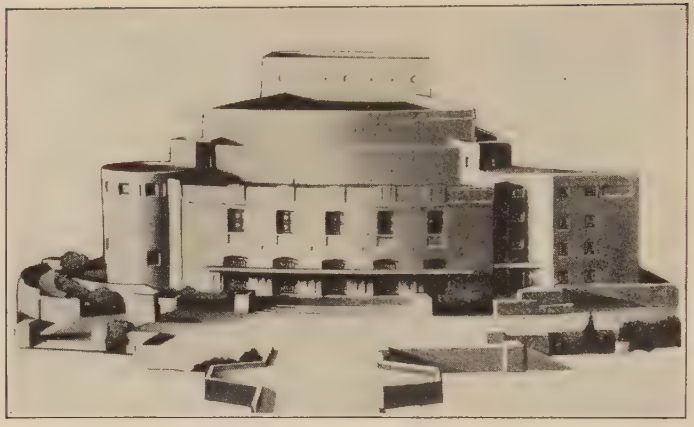
PARLIAMENT BUILDINGS AT OTTAWA, CANADA

distinction in the profession frequently receive very high fees. The average architect makes a comfortable living.

Personal qualifications. The young person thinking of architecture as a profession should ask himself or herself the following questions:

1. Have I artistic ability?

2. Have I the patience and persistence to do the careful mechanical drawing and the other tedious work required?



SHAKESPEARE MEMORIAL THEATER

A young woman architect took the first prize in the contest on plans for the Shakespeare Memorial Theater

3. Am I willing to spend the time, the energy, and the money which are considered necessary for preparation?

4. Am I honest? Should I be willing to give up many opportunities to make money in order to be true to the job?

NOTE. The architect is not allowed, according to the ethics of the profession, to have any financial interest in the contract. He is working for the owner of the structure, and it is his duty to see that all material and workmanship are exactly according to the contract.

5. Am I willing to spend several "lean" years before business comes my way?

6. Am I such a lover of beauty that I am willing to fight for high standards?

As in many professions, there is considerable specialization in architecture. Some people deal with dwelling houses, some with office buildings, some with public buildings, others with school buildings. Every large city today employs an architect whose office employs a con-

siderable force of men and women who do nothing but work on plans for building and repairing schoolhouses.

For the young person interested in creating beauty and comfort for the people around him, architecture offers a splendid field. He can be confident that he is doing a real service, for what greater usefulness is there than to replace ugliness with beauty?

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More information on the work of the architect will be found in the following books:

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NEWELL, F. H., and DRAYER, C. E. Engineering as a Career. D. Van Nostrand Company, New York.

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CHAPTER XXII

DENTISTRY

People living a century or two ago must have had a horror of the dentist's chair. Then there were very few dentists, and those persons called dentists had little training except that picked up in the practice of their trade. Dentistry was not then a profession: it was a trade. It ranked with such trades as that of the silversmith, blacksmith, or carpenter. How should you like to go to the shop of a blacksmith or silversmith or other artisan for your dental work? In many cases in those days teeth were extracted by the heads of families; more difficult cases were handled by mechanics or the rare dentists. Occasionally a town depended for its difficult work on a traveling dentist who went from town to town extracting teeth. Very few sets of artificial teeth were made in those days. George Washington had one of the first sets in America, and the teeth are said to have been whittled out of the tusks of a hippopotamus.

But regardless of the crudeness of the work, it was necessary, and much pain was relieved. Dentists today are great benefactors of man. Only recently it has been learned that the condition of the teeth has much to do with the general health. It has been learned also that cleanliness of the teeth will prevent decay and much pain and trouble.

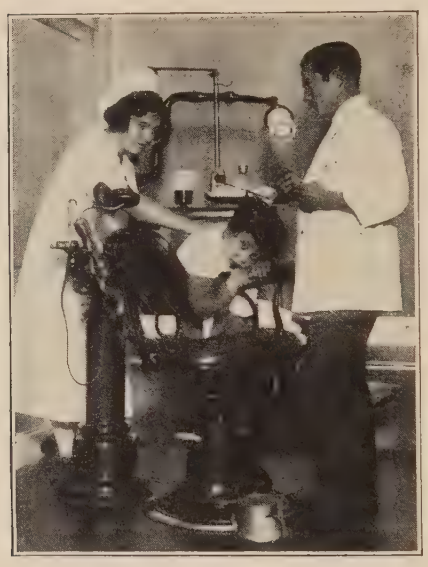
Work done by the dentist. Today, as formerly, most of the work of the dentist is mechanical. He pulls teeth, drills cavities, fills them with gold, silver, or composi-

tion, straightens protruding or unsightly teeth, takes impressions, makes artificial teeth, crowns teeth with gold or other material, treats nerves, and does many other things, mainly mechanical. It requires manual skill to do these things, and the awkward person will not succeed.

Recently the work of the dentist has become increasingly scientific. He looks upon a tooth not so much as an instrument used in masticating food, but as a part of the body which may have great influence on one's health. It may furnish a focus of infection from which poison is carried by the blood to all parts of the body. Rheumatism, heart trouble, nervousness, and other ailments have been traced directly to poisons given off by decayed teeth. No physician today feels that he has given a patient a complete physical examination until he has had his teeth examined carefully for possible infection. Our best hospitals frequently have dental surgeons, who work hand in hand with physicians in their war against disease. There are few dentists today who do not have machines for taking X-ray pictures of teeth. This scientific trend has rapidly raised the standards of training for dentists. All standard medical schools require not less than two years of college work before admission, and the best dental schools make the same requirement of persons who wish to study dentistry.

Essential qualifications. A qualification essential in any dentist is cleanliness. If you have ever had a dentist with unclean hands or bad breath work on your teeth, you appreciate this statement. The dentist whose hands and nails are spotless, whose white suit is freshly laundered, and whose office is neat and clean will attract patients who would refuse to be treated by a slovenly person, no matter how skillful. The successful dentist should possess

a pleasing personality and should be studious, a hard worker, and physically strong. Furthermore, he must be strictly honest. Few of his patients know anything about their needs, and they put themselves into the hands of the dentist with confidence that he knows what they need. If he knows, he should treat them for their trouble; if he does not know, he should advise them to go to someone who can treat them intelligently. The dictionary definition of an expert says that an expert may be held accountable at law for knowing what he claims to know. The dentist, as well as the members of some of the other professions, should be aware of this fact. Professional ethics forbid him to advertise further than by the use of a business card. Stay away from the dentist who covers the side of a building with statements of his wonderful skill in removing and treating teeth absolutely without pain.



THE DOUBTFUL PLEASURE OF SITTING IN A DENTIST'S CHAIR

Preventive dentistry. In a junior high school, not long ago, when the teeth of all the children were examined it was found that ninety-seven out of every hundred had one or more bad teeth. In most grade schools we find that from 50 per cent to 90 per cent of the children have some

bad teeth. On account of this the school authorities in many countries are beginning to make plans for examining and caring for the teeth of school children. In many cities there are free dental clinics where children sent from school have their teeth treated. Here are employed also dental hygienists, whose business it is to see that children's teeth are carefully cleaned. A dozen states have laws for licensing these hygienists, who are a great help to the dentist in his fight for good teeth. The license permits them only to remove stains and deposits from the teeth. Usually women are employed for these operations, and they work under the direction of licensed dentists.

Community and school dental work offers splendid opportunities to young dentists who need practice. It is mostly preventive and does not require the high degree of skill required in the curative work.

Specialization in the field. Not all dentists do all the things that dentists are required to do. Some specialize in dental surgery, doing nothing but removing teeth and performing difficult operations on the jaw. Some specialize in the treatment of diseases of the mouth; others do filling; some do bridge work only; and others spend their time making and fitting artificial teeth. Of course the dentist in general practice is still doing the many things demanded of the dentist of years ago.

Income. The capable dentist who has a good location will rapidly build up a good practice. Frequently he will begin in the office of an experienced dentist, receiving from $30 to $50 a week. Later he will take an office of his own. After practicing four or five years in a favorable location he should receive from $4000 to $8000 per year.

Income is not the only interesting feature of dentistry, however. The field has many unsolved problems that will challenge the bright young person. It offers an

opportunity to relieve suffering and disease. No one should enter this profession who is not interested in the good he can do. The appreciation of patients is one of the most satisfactory rewards.

Problems. In the following list of subjects offered in high schools are some that will be of special value for you if you plan to take up dentistry: mathematics, Latin, French, physics, chemistry, metal work, history, civics, problems of democracy, English, art, music, bookkeeping, stenography, domestic science, woodworking, biology. Copy the list and underline the six of most benefit to the prospective dentist. Write a short paragraph on each of the underlined subjects, telling why it will be of value.

Find out what your community is doing for the teeth of its school children. (1) Does it support a school dentist? (2) Does the dentist fill teeth and give them other attention, or does he only examine them and tell the children what to have done with them? (3) Does your community support a dental hygienist?

The cost of training for dentistry is probably something like twelve hundred dollars a year. If you study dentistry, how do you plan to obtain the money for your five or six years of schooling above the high school?

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CHAPTER XXIII

EDUCATION

1. Find out the main items for which your community spends money. Among these important items will be roads or streets, fire protection, police protection, lighting, street-cleaning, etc. This information may be obtained from the mayor or burgess or whoever is at the head of the local government.

2. What are the best public buildings in your community?

3. How many doctors are there in your community? dentists? ministers? lawyers? Compare the total number of these with the number of teachers. Are you surprised at the results of your comparison? It indicates that education is about the most important activity in your community.

On the average, wherever there are 140 persons in this country there is a teacher. Also, there are about 30 children to be taught. Of the 130,000,000 people in this country, about 900,000 are teachers or are in some way connected with teaching. About 30,000,000 persons attend school in the United States each year. The cost of all the schools in the country runs into billions of dollars. Why are people willing to spend so much money for teachers and buildings and equipment?

What we owe to the school. The answer is not hard for the person who is willing to think. Ask yourself the question how far this country would have progressed if no one could read or write or solve simple problems in arith-

metic. How long would the average life of people be if our schools and colleges did not teach us how to keep well and did not train physicians to cure our diseases? How should we be traveling now if there were no schools? Probably with the crude oxcart or with two poles tied to a horse, as the Indians used to. How should we communicate with people? Probably with the shortest, simplest sentences and only with those people near us instead of talking as we do from London to New York City. Without education we should not have music and literature and art and all the fine things that enrich our lives.

The teacher plays an important rôle. Of all the people connected with education the teacher is the most important. To many persons teaching means telling or handing down information and drilling it into the students. This is only a small part of the teacher's work. Now we think of him as the guide who directs the pupil in his learning. He helps young persons to find themselves and guides them into activities that will make them strong men and women.

What the teacher does. What the teacher actually does probably can best be answered by giving you the program of Miss Long, who is a teacher in the fourth grade in the city of Organon. She goes to work at 8.30 each morning, has an hour and a half for midday lunch, and dismisses the children at 3.30. During the morning she holds classes in arithmetic, spelling, history, and penmanship. In the afternoon she conducts classes in geography, drawing, health, and reading. After school she corrects papers handed to her during the day, prepares lessons for the following day, and holds conferences with parents whose children are not doing so well as they should. But during the day she has had to heal some

A CONSOLIDATED SCHOOL IN THE PENNSYLVANIA MOUNTAINS

Here the architect and landscape gardener have coöperated to produce a school center in which the whole community can take pride

injured feelings, bandage a bruised hand or head, see that children play peaceably together, answer a thousand questions, and give advice to vigorous and often too active boys and girls.

Of course not all teachers teach in the fourth grade. Many are primary teachers; others outside the grades teach in junior or senior high school, not to mention academy, college, or university. Each school has a specific type of work, varying principally with the age and development of the students. In any school above the lower grades a teacher will teach only one or two subjects; in the larger schools usually he teaches only one.

Advantages in the teaching profession. What are some reasons for selecting this occupation? Biggest of all, probably, is the fact that in the teaching profession one is working for the benefit of others than himself. Very few things of importance are done in the world by people who are not educated. None of our big skyscrapers would be built or stand when built unless the builders had been very carefully educated. Our great bridges would remain unbuilt or would fall into the rivers but for educated engineers. Great teachers have led such men as Carrel, Pasteur, John Marshall, and Alfred Binet to want to find the truth; and that truth, when found, has made life longer, more comfortable, and more useful. The aim of good men and women everywhere is to make living conditions more comfortable, to make people more intelligent and more considerate of one another's welfare. The teacher is the great leader and guide in the work of making life better.

But apart from the unselfish side of the work, the teaching profession offers distinct advantages. The school year is short and vacation is long. Not many other professions provide a two or three months' vacation.

The teacher associates with young folks, and this should help him to keep his youth. He is constantly in an environment that encourages him to study and improve his education. His constant association with books and authors almost forces him to keep abreast of progress and continuously to enlarge his education. There are many

RUSSELL HALL AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY

professional organizations, such as the National Education Association, the state association and local educational bodies, which he may join and which will bring him into intimate relationship with the bigger and wiser members of the profession. If any teacher fails to do better work each succeeding year, he may well blame himself for neglecting the many excellent opportunities for advancement.

The demand for teachers. The demand for teachers is growing from year to year. The reasons for this

are not hard to find: (1) population is increasing; (2) compulsory-school laws are requiring more people to attend school and to attend for a longer period; (3) in many places the number of pupils per teacher is gradually being reduced. To illustrate the rapid growth in the demand for teachers, Dr. Judd of The University

A CONSOLIDATED SCHOOL

Throughout the country centrally located consolidated schools such as the one above are replacing isolated country schools. Here, in addition to the regular subjects, cooking, sewing, agriculture, manual training, and other kinds of shop work are taught

of Chicago is authority for the statement that in 1845 the average number of days each person in the country attended school during his lifetime was 208; in 1870 it was 580; in 1890 it was 770; and in 1920 it was 1200 days. Even if the population of the country had not increased since then, nearly six times as many teachers would be required now as then; but whereas the population of the country in 1846 was 17,069,453, in 1937 it was about 130,000,000.

The work is steady. Teachers are always needed regardless of the financial condition of the country. During the depression following the World War many teachers were thankful that they were not engaged in some less stable occupation.

The question of promotion. Advancement depends on the qualities that bring promotion in other professions: preparation, personality, industry, and honesty, coupled with intelligence and a genuine love for people. Many classroom teachers of outstanding ability have been advanced to high positions. Principalships, superintendencies, and college professorships are frequently filled by persons who have been classroom teachers.

Working conditions. Hours of work are comparatively short. Vacations are long and offer opportunity for teachers to rest, do other work, teach in summer schools, or attend summer sessions of higher institutions of learning. The teacher's health depends on his ability to take care of himself. The teacher who pays no attention to the ventilation of his room and who takes no outdoor exercise will not find the profession a healthful one. The wide-awake person, however, who has in mind his own health and that of his pupils may find buoyant health and enjoyment.

Some disadvantages in the profession. Like any occupation, teaching has drawbacks. The pay is not large, an exceptional few reaching a salary of as much as ten thousand dollars a year. These positions are filled by persons in the better superintendencies, principalships, professorships, and presidencies of colleges. Many people think that the teacher's work is done when he closes the classroom door in the afternoon. Notwithstanding this popular opinion there are probably few persons who spend more hours in their work than the teacher. After the

day's work is done he has his papers to correct, lessons to prepare for the following day, and numerous social duties connected with the job to attend to. The person who works with people has to be intelligent about the welfare of those people and must spend some time in looking

AN OLD-TYPE RURAL SCHOOL

This type of school building is being rapidly replaced by more modern and more serviceable ones

after their good. Parent-teacher associations and extra-curricular activities take time that many people would rather spend in playing golf or tramping in the country. In this profession one is not "his own boss": he is working for the people and must always keep this in mind. Things that he would naturally like to do he may not do because of the example he must set before his pupils. He feels that every parent or citizen in the town is his employer, and he must work for the best interest of each of them. The teacher must know from the beginning that he is a "social worker," and the path of a social worker is

seldom strewn with roses. Furthermore, certain teaching fields are overcrowded. Find out which ones.

Some needed qualifications. If you are to consider teaching as a profession, stop and look carefully into yourself. Do you have keen intelligence? Have you a rather large store of patience? Are you honest and upright in everything you do? If not, do not consider this work. Are you willing to work long hours and to forget very largely the salary you receive? Are you a keen observer? Are you interested in children? Is your health buoyant? Are you attractive to other people? Do you make friends and keep them? Is it easy for you to smile "when everything goes dead wrong"? If you have most of these characteristics, can develop the others, and are willing to take the time and spend the money for preparation, you should be a successful teacher. You will need to be a graduate of a high school or preparatory school, and for teaching in the elementary school you must have at least two years of professional preparation, preferably in a normal school. Tuition in state normal schools is free to prospective teachers. Those who attend four-year state teachers' colleges or state universities also may expect free tuition. For teaching in schools above the elementary schools you should have the equivalent of a college education, and for college work, from one to three more years of schooling are demanded.

Unless you are a thorough student do not plan to teach. If you are strong in some branch and like it especially well, plan to become an expert in that and do everything in your power to learn all that is known about the subject. You may not be a good teacher even if you know your subject, but you cannot be a good one if you do not know it. Also, you must be always studying and improving yourself. A teacher never stands still: he goes

either forward or backward. The teacher who is a scholar may expect to be able after years of experience to write articles or books that will be helpful to parents, teachers, or pupils.

Salary. The person entering the teaching profession may expect to start at a higher salary than that received by most persons in other occupations requiring equal

SCHOOL BUSSES BEFORE A CONSOLIDATED SCHOOL

These school busses stop at the various homes and carry the children to and from school in all kinds of weather

training. The number of salary increases is usually not so large as in some other professions. The teacher receives enough to live comfortably but not lavishly. Salaries of public-school teachers rarely exceed $3500. The average salary in the United States in 1935 was about $1355. The average for all the teachers in Pennsylvania in 1935 was slightly less than $2000 a year. These salaries ranged from $600 a year up. Principals, superintendents, and educators engaged in special types of work receive more money. Some principals, superintendents, college presidents, and professors receive as much as $15,000 a year or even more. Salaries of this size, of course, are rare.

The average salary among principals and superintendents is probably about $4000. One's income in this, as in other professions, depends largely on his success. Only those of outstanding achievement receive high salaries. In many states pensions are granted to teachers who have given a specified period of service in the public schools.

The young person entering teaching may feel that he is going into a field which is distinctly "productive"; that is, one of real value to the world. He will, if he is suited to the profession, find real joy in the work, and he will make a comfortable living. His associates and friends will be people of culture — people who are not thinking always of how to make money, but more of how to make character. When he has finished his work he should be able to lay it down with the feeling that the results of his work will not stop this year or next, or as long as men and women live and work.

Special Fields of Work in Education

The librarian. In many schools the librarian is one of the most important persons employed. She teaches not only one or a few classes but all the pupils in the school. All teachers send pupils to her for help. It is her business to see that pupils and teachers get the books they need for their school work. She must keep a quiet place for them to study; she must help them to find the information they need. She must be a person of broad education, kindly and helpful, quiet, but strong and capable of gaining the respect of pupils and teachers. She must "know books" as no other teacher does. If you love to read good books and have the other qualities mentioned, the work of the librarian will interest you. In another chapter you will learn more about the work of the librarian.

The research specialist. People are more and more convinced that they must know just what they are getting for the money they spend. They want to know how the work of their schools compares with that of schools in other places. Children are being classified according to their special abilities; boys and girls are being guided into courses of study and vocations; many records and forms have to be devised for the management of the schools. These things are done by the research specialist, or director of research and guidance. He must be well-trained, usually with more than a college education, and especially able to handle statistics and to do clear thinking based on the facts he finds. He receives a salary higher than that of the average teacher, more nearly on a par with that of the superintendent.

The school psychologist. It is the business of the school psychologist to study children who are different from the great mass of children and to decide what will be best for their training and development. The psychologist deals more often with the child that is mentally of low grade than with the child of high ability, but the latter also receives his attention. We now think that people's minds need just as much attention as their bodies. The psychologist is the mind doctor of the school. Schools more and more are beginning to employ psychologists. One should not attempt to be a psychologist until he has had at least three years of training beyond college.

The vocational adviser. The vocational adviser is a teacher who has been in the schools only a few years. He should know much about vocations and also about boys and girls, so that he can help the children to choose the vocations that will be best adapted to their abilities. No one should plan to become a vocational adviser who does not like boys and girls and who is not interested in help-

ing them to get started in the work and in following them after they go out into the world.

The visiting teacher. Only recently teachers are being asked to go into the homes and try to straighten out difficulties for children. Frequently children come to school and cannot do good work on account of some home

SOME BUILDINGS AT HASKELL INSTITUTE

School maintained by the United States Government for the descendants of original Americans. (Courtesy of the United States Department of Indian Affairs)

trouble or difficulty that the regular teacher cannot follow up. Many cases of discipline and truancy as well as other types of cases cannot be taken care of properly unless someone goes to the home and tries to make adjustments. Frequently the visiting teacher has to go to the various social agencies of the town or city to arrange for assistance for boys and girls who are living in very poor homes. In other words, the visiting teacher is a teacher who takes a special interest in the individual boy

or girl who has troubles at home as well as at school. The work requires tact and much common sense. The visiting teacher must know much about human nature in men and women as well as in boys and girls. She must be able to meet people pleasantly and get their good will, and she must be able to get people to work with her.

The dean of girls or boys. In large high schools one of the best teachers is frequently asked to be dean of girls or of boys. To this person the boys and girls carry their troubles and get help in them; they go for advice on social and school matters. The dean is frequently a special sponsor for various student activities, including clubs and student government.

New positions in the teaching profession are constantly developing to meet the needs of the modern school. The young person who becomes a teacher will undoubtedly have the opportunity to enter a number of branches of the profession not known or dreamed of today. If you would blaze a new trail in the profession you must become familiar with the entire field and determine where the greatest need lies.

ASSIGNMENT

1. Ask a number of teachers why they are in the profession.

2. Observe your teacher very closely for a week and write down the things that he or she does.

3. Make a list of the characteristics of the best teacher you ever had; for instance, firm, fair, good-natured, and so on.

4. Ask your father what his yearly income is. Then compare this with the income of a good teacher who has been teaching fifteen years. Should you be willing to work for this salary?

5. Find out, if you can, what are the duties of your principal; of your superintendent. How much salary does each get? Does the work appeal to you and should you be willing to work for that salary?

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CHAPTER XXIV

ENGINEERING

Did you know

That in the city of Pittsburgh a street flanked with tall buildings was lowered sixteen feet for several blocks?

That when a railroad company found it would be able to gain time and efficiency by digging a tunnel three miles long through a mountain, two crews of men were set to work, one on either side, and such accurate measurements had been made that when their excavations came together, they were only nine tenths of an inch out of line?

That subway trains pass under the East River every few minutes, crossing from New York to Brooklyn?

That the whole city of New York, with its towering skyscrapers and mammoth apartment buildings, is underlaid with a network of subways, where trains of eight, twelve, and fifteen cars roar along at terrific speed?

That high over streets crowded with traffic similar elevated trains go?

That the seven million people of that city are provided with an ample, unfailing supply of delicious water brought down from the Catskill Mountains?

That the Mississippi River is dammed at Keokuk, and St. Louis one hundred and thirty-five miles away is supplied with electric lights and power from this dam?

That events in London are reported to us seemingly five hours before they happen?

Our debt to the engineer. Who are responsible for all these things? Who make them possible? The engineers.

Without them none of these things could be. We owe to them the steamboat, the airbrake, the modern bed spring, the bicycle, the typewriter, the radio, the submarine, the airplane, the phonograph, the suspension bridge, the automobile. Can you mention anything else that we owe

ROOSEVELT DAM

The Roosevelt Reservoir is formed by a dam in the Salt River Canyon. It covers an area of 18,100 acres. Six years were required to build this dam, which contains 342,325 yards of masonry and has a 16-foot roadway along the top. (Courtesy of the United States Bureau of Reclamation)

to the wisdom and work of these men and women? Are there any outstanding examples of their work in your community or county? any bridges or dams or buildings? Engineers have been doing important things for a very long time. They built the Pyramids of Egypt about twenty-nine hundred years before Christ was born, and the Grand Canal of China, which is eight hundred and fifty miles long.

Four main branches. Today engineering is absolutely necessary in transportation, in manufacturing, in mining, in lumbering, in planting, in harvesting, in building and construction. There are four main branches of it: mechanical, which deals with the use and construction of tools and machinery; mining, which deals with the digging and working of mines; electrical, which treats of all things electrical; and civil. These four branches are divided and subdivided into many branches. The Federal government lists eleven branches, and the department of education in the state of New York lists forty-two.

For instance, civil engineering, in general, includes structural, municipal or sanitary, hydraulic, railway, highway, etc.; mechanical engineering includes heating, ventilating, automobile, steam, gas, etc.

There are really no hard-and-fast lines between the many divisions of engineering. The civil engineer frequently does important work in mechanical engineering; the chemical engineer, in sanitary or agricultural engineering. These changes from one branch into another are made possible by the fact that all engineering is based generally on mathematics, chemistry, and physics. Of course, there are other sciences necessary to some branches; but usually the course of study for the first two years is the same for all branches of engineering. After that, students may follow specialized lines.

The four great American societies of civil, mechanical, mining, and electrical engineers have a membership of from twenty-five thousand to thirty thousand.

Engineering work differs greatly in its scope and the demands it makes upon those who follow it. Mining and civil engineering require out-of-door work almost entirely; mechanical and electrical engineers, as a rule, have indoor work.

Civil engineering. Civil engineering is the oldest of all the engineering branches. Since it deals with the design, construction, and upkeep of roads, railroads, bridges, tunnels, canals, navigation systems, draining of harbors, etc., there can be no question as to its very great importance; nor is there any question as to the future of the work. Our population is increasing constantly; and as long as that is true, there will be an ever-growing demand for engineers to open up means to make progress possible.

Actual work of civil engineers. Let us see what a civil engineer really does. Imagine yourself a civil engineer for a little while; this need not refer to boys only, for there are many successful women in the profession. A paved road is to be built between the town or community in which you live and a place some twenty-five miles away. Two routes are possible: you must cross a river half a mile wide, run your road through some rich farm lands and two small towns, and so cut off two miles; or you must go up the valley about ten miles, cross two creeks, then for three fourths of a mile grade off the side of a mountain (a creek runs right at its base), and cross a bridge already constructed farther up the river. Of course you want to do the job as inexpensively as possible and still have a good road. What will determine your route? What kind of road will last the longest with least upkeep? What kind of bridges or bridge shall you build? You will have to purchase all the materials, you know, and supervise all the work. If the second route is chosen, what about all the earth taken from the mountain side?

Dr. Swain, professor of civil engineering in Harvard University, says there are four parts to any civil engineer's job: first, to determine if anything should be done and, if so, what; second, to draw up plans for doing it;

third, to select and test the proper materials; and fourth, to carry out the actual work. Then he gives this definition: "Engineering is the science and art of applying economically the laws, forces, and materials of nature for the use, convenience, and enjoyment of man." If you are able to do anything along this line, your work in the world will certainly be worth while; your life will be one that will count.

Can you afford to accept "just as good"? Jay Miller offers you some material which you know is not rated as first class; yet Mr. Miller says it is "just as good." He will let you have it at an unusual discount. In twenty-five miles of roadway, if you accept his offer, you can add several thousand dollars to your commission. Can you afford to accept the offer? Why?

Must you have sugar? Often in working through new country, months of life in out-of-the-way construction camps are necessary, where the so-called comforts of life are impossible. A consulting engineer who has reached the top of his profession was once asked why he seemed to care so little for sugar (he never took sugar in his coffee or tea or on any kind of cereal). "Well," he explained, "I was out on a job once, and for three months we had to get along without sugar. Now I prefer things without it." If you feel that on occasion you cannot sleep without a feather pillow or endure tea without sugar, possibly it will be wise to consider another branch of engineering. Of course these are only minor hardships; there are some real ones noted in the next paragraph. If you plan to enter the civil branch of engineering it will be well to try yourself out in field work during the summer months before entering serious training.

Some of the disadvantages and advantages. A great many boys and a number of young women decide early

TRAIN ENTERING EAST PORTAL OF CONNAUGHT TUNNEL

It is easy to see that real engineering skill was required in the building of this railroad. (Courtesy of the Canadian Pacific Railway Company)

in life to become civil engineers. Talk to some engineer you know or read the life of Goethals, Eads, De Lesseps, or Bessemer and check up the following lists of disadvantages and advantages of the profession.

Disadvantages

Long training required.
Much time spent in out-of-the-way camps.
Physical danger.
Having to work out problems of construction with no precedent whatsoever.
Irregular employment.
Exposure to all kinds of weather.
Field somewhat overcrowded.

Advantages

An honored and valued profession.
Creative work. (Explain this.)
Outdoor job.
Requires travel, sometimes in foreign countries.
Association with all types of men. (Why is this an advantage?)
Performs a distinct service to mankind.

Rome was not built in a day. Someone has said there is a close connection between success in a profession and the length of time spent in training for leadership in that profession. Engineering is no exception to this. It calls always for a high-school education and, if possible, a good college education with technical training. While some universities offer a five-year course, most of the technical schools require only four years to graduate. It is possible to get into the profession and to advance without college training; but it is difficult, and more and more business concerns and corporations are seeking men with college educations. Some firms send out scouts to the better schools each year to talk to the graduating engineers, with a view to getting the more promising ones

interested in their special line. The Westinghouse Electric Company employs each year some three hundred engineers graduating from colleges and technical schools. We all know that a few men with very little schooling have advanced to the front ranks in engineering as in other professions, but those men are exceedingly rare and are becoming more so. Then if those few, in addition to their unusual ability and intelligence, had obtained the best training, how much more would they have been able to accomplish?

A good technical course in high school lays the foundation for the training of an engineer.

Some personal qualifications. Do you like arithmetic? To succeed as an engineer you must have a liking for figures. Open up the pages of some engineering magazine and observe the number of problems and diagrams. If you enjoy finding a better way out, a more efficient method of doing things, if you can think quickly and be pretty sure you are right, if you have imagination enough to visualize a thing as it will look when completed, then you have some of the necessary qualifications of a successful engineer. A civil engineer must handle large sums of money not his own — hundreds of thousands, sometimes millions, of dollars. Suppose the men who are to employ him have some doubt as to his trustworthiness. In purchasing his many supplies and in supervising the entire work on any construction, an engineer comes in contact with all sorts and classes of people. What about his personality?

Civil engineer's salaries. Civil engineering is one of the most underpaid of the professions. Starting salaries range from $125 to $165 a month for rodmen and level men in field work. The chief of party in field work makes from $160 to $225. Assistant engineers make $200 up.

In the Department of the Interior there are some 2389 men in civil engineering. Salaries range from $45 a month for rodmen and chainmen to $10,000 a year for chief engineers, of whom there are only four in the entire service. The field of engineering is crowded, which is one reason for the low salaries. Fifteen years after graduation from a well-known technical school, engineers' salaries ranged from $2500 to $20,500, the greater number receiving from $3000 to $5000.

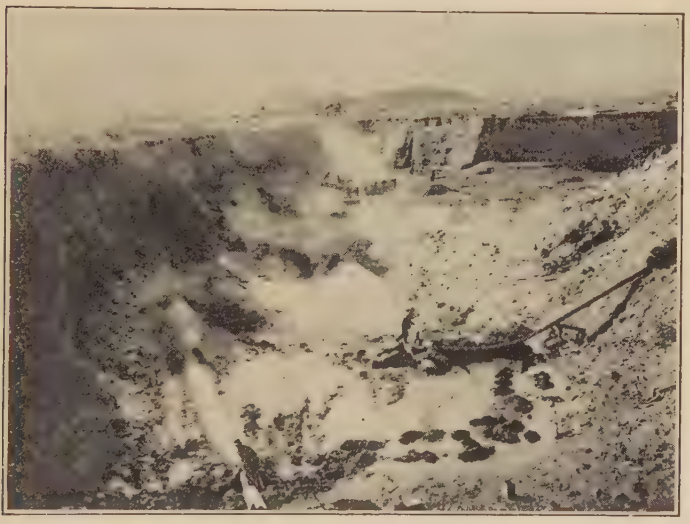
Bring in some more information. If each member of the class will be on the watch for magazine and newspaper articles on engineering, you ought to get some interesting information. If you can bring the clipping or article to class, do so; otherwise read it carefully, make notes if you think wise, and be ready to report on it. If you hear of any unusual or noteworthy thing being done by engineers, get accurate information and report on it to the class.

Electrical engineering. The electrical engineer designs, constructs, and operates all lighting plants which furnish electric lights all over the world; all electric heating appliances, from the toaster on your breakfast table to the electric furnace; all power plants which furnish power to all trolley lines, electric trains, subways, etc.; all telegraph, telephone, and radio plants; and all kinds of machinery operated by electricity. There is a tendency toward gigantic electric-power stations which will serve people throughout the country, those in small villages and on farms as well as those living in cities. The development in the radio and in the moving-picture world continues. So the field of the electrical engineer is a growing and expanding one.

Mining engineering. The mining engineer deals with the locating, digging, and working of mines and the testing of deposits. He too should have four years of

training beyond the high school. His personal qualifications should include a strong constitution, enjoyment of life in the open, and ability to handle men.

Just how important is coal? Coal is behind the steam that moves the trains and ships. Coal creates the steam



HYDRAULIC MINING

A modern method of obtaining the ore in placer gold mining. (Courtesy of the United States Bureau of Mines)

which gives power to an engine that runs a generator, and this in turn supplies electrical power and light. We owe the coal to the mining engineer. He makes mining possible, reduces mining accidents and uncertainties to a minimum, and greatly increases the amount of coal or ore that can be taken from each mine. We owe to him more than coal. Think of the vast amount of steel we use: for all sorts of tools, every kind of machinery, trains, railroads, street cars, automobiles, office buildings.

Now all steel comes from iron ore, and iron ore we owe to the mining engineer. Copper, gold, silver, all ores, petroleum, and gas we owe to the mining engineer. His is an exceedingly useful and interesting career. If you would like to learn more about his job, the training needed, the advantages and future of the work, the salary, etc., read some of the books given at the end of this chapter and go to the Readers' Guide for lists of magazine articles.

ELECTRICITY IN THE FARM KITCHEN

The electrical and mechanical engineers have worked together to lighten the tasks of the woman living on the farm

Mechanical engineering. The mechanical engineer deals with the use and construction of tools and machinery. He has under his care the designing, building, and operating of machine shops and manufacturing shops. The need for efficient men in this line far exceeds the supply. Usually graduates are placed before they have finished their first year in school. At least four years of advanced education beyond high school are needed for success in mechanical engineering. Salaries in this work are fairly good.

The work is vitally important. All other engineers would have a difficult time if it were not for the mechani-

cal engineer. He designs and creates the tools and the machinery with which the men in the other branches of the profession work. All our labor-saving devices we owe to him, from typewriters and washing machines to the great locomotives that carry enormous loads of freight and long trains of passengers across the country. We need him in every line of work: in building, in harvesting, plowing, and sowing, in mining, in manufacturing. We turn the faucet to get a drink: a mechanical engineer designed the faucet. We lock our door: we owe the locking device to the mechanical engineer. We get into our automobile: a mechanical engineer designed all its parts. We push through the swinging door of an office building and enter a hydraulic elevator: a mechanical engineer designed both.

If you enjoy working with tools and are clever at contriving devices to save time and steps; if you enjoy making things go, taking them apart, and putting them accurately together again; if you especially enjoy mathematics and physics, it will be well for you to read the books listed at the end of the chapter.

Chemical engineering. While chemical engineering is not classed as one of the four main branches of engineering, it is of sufficient importance to merit special attention. The chemical engineer, or industrial chemist, is a man better paid than men in other branches of the engineering profession. Here too the most capable men and women are placed before they graduate from institutions of advanced learning. The number of different kinds of industries is increasing, and all of them are striving always to improve their products and discover ways of economizing in all branches of their manufacturing. To do this industrial chemists are needed, and industry is willing to pay for their services. These chemists are

needed to determine the quality of the material purchased and the quantity of the material produced. The demand for such men now is greater than the supply. The service to the public in assuring good material at a saving is unquestionable. The salary is good. However, anyone undertaking such work must have a strong liking for chemistry and must have at least four years of technical training beyond the high school.

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CHAPTER XXV

JOURNALISM

Have you ever thought to yourself or heard anyone say, "Huh! just some newspaper tale stuck in to make the paper interesting!" or, "Yes; some newspaper stuff. It probably never happened!" There may be a few newspapers which resort to exaggeration and sensational topics to increase their circulation, but no good ones print purely manufactured news items. A well-established paper insists that the statements in its columns be unquestionably accurate. Its reporters must be sure that their reports of things great or small are based on fact and that they stick to the truth in their writing.

The story is told that during a great blizzard in New York City, where all forms of transportation had been held up, a report came in that several funeral processions were snowed under in one of the cemeteries. A reporter was sent to find out. The snow was waist-deep, and it took him six hours to struggle through it, there and back. He ended his day thawing out his frozen feet in a pail of water. As a result of his trip the following item appeared in his paper: "The rumor that there were three funeral processions snowed under in Greenwood Cemetery was found upon investigation to be untrue."

No easy matter to get facts. It is no easy matter to get the exact truth about happenings. In any big commercial failure, in any political scandal, in a suicide, in any sort of family disgrace, the persons most concerned do not want the facts of the case known. Mr. Lord, who for thirty-

three years was managing editor for the New York *Sun*, says that an experienced reporter starts out on an assignment with the expectation that half the people involved will attempt to fool and mislead him. How is he to know when he is being lied to? "Ah!" says Mr. Lord, "but he must know. It is his business to know."[1] You see thousands, possibly millions, of people will read that reporter's story. It is his job to get at the truth and give it to them.

The influence of a newspaper. Upon the facts, as given by newspaper men, and upon editorial comment, the public bases its opinions. Sympathy and understanding or dislike and resentment for a country, a cause, or an individual can be created by the newspapers. A fact in the hands of a capable reporter is a powerful thing. It can cause the downfall of a political party. It can make or destroy a man's career. James G. Blaine lost his chances for becoming president of the United States because a reporter overheard an indiscreet statement made by one of his chief lieutenants. A news item reported by Colonel Repington, who was war correspondent for the London *Daily Mail*, so aroused the public that investigations were started in the British army. As a result the army was put on an up-to-date fighting basis. Then when the World War came England was more nearly ready to meet it than she could have been otherwise. A very great responsibility rests upon the reporter. He must not blacken the name of an individual or a cause unjustly, but he owes his public the facts.

Hardships of a reporter. The reporter is not particularly well paid for his services. His hours are most irregular. His paper must be on the alert twenty-four hours a day; and his time belongs to his paper. Of

[1] From The Young Man and Journalism, by C. S. Lord. By permission of The Macmillan Company, publishers.

course he has his assigned working hours, but he has no leisure time on which he can count. One wife said that in living with a reporter husband she had lost all the accepted distinctions of time and frequently began her house-cleaning at two o'clock in the morning. The reporter must go out in all kinds of weather and must endure any sort of hardship necessary to get the news. It is not pleasant to interview a father or mother whose son has disgraced himself, or the wife of a suicide. It isn't pleasant to camp on the eminent man's doorstep to learn the exact moment of his death. The actual writing of the assignment must be done quickly, usually in the noisy writing room of the newspaper office, where many reporters are dictating aloud and there is a constant clacking of typewriters. This is usually confusing to new reporters. The hours of a man on a morning paper are usually from two in the afternoon until twelve midnight. What about his home life, his amusements, his leisure time? His wife must spend her evenings without him. These conditions prevail for nine tenths of the morning staff. They interfere continuously with normal social and home life.

Salary. The reporter gets less salary on the average than the skilled mechanic. A cub reporter for a big daily may begin work at $25 a week and, by ability and good work, rise to from $40 to $60. The reporter for a small town paper gets much less. The reporter who draws a salary of $5000 is considered a highly successful man. Few reporters command this salary. Of course the various editors, special writers, correspondents, etc., get better salaries, but such positions are comparatively few in number.

Yet the reporter clings to his work. In spite of all these hardships newspaper men who are in the work declare

that the life of the reporter is the most fascinating and enjoyable of any in the entire list of occupations. One man declares that only an active career of adventure on the high seas can furnish more thrills and fuller opportunity to experience life than can be found in the first

THE PRESS STAND AT THE HARVARD-YALE FOOTBALL GAME

From the press stand atop the Harvard Stadium play-by-play news was wired direct to New York, and thence by cable and wire to the Harvard Club in London

ten years of journalism. Look around a bit in books and in papers and in talks with men and women find out some reasons for such declarations. Another man stated that several years as a reporter would be better preparation for almost any job than those same years spent in the actual occupation. Can you see any reasons why this might be true?

You may not get this impression when you talk to a newspaper person about his work. As a rule men and women are likely to speak first of the disadvantages of their jobs. In no profession is this truer than in journalism. Reporters belittle their jobs, expand in telling of their difficulties, and yet they shy away immediately when any other occupation is suggested to them.

Why she got the job. Emily Powers came out of her sixth newspaper office, dazed but happy. She had at last landed a job as reporter; had already been given an assignment to cover! A real assignment, her long-hoped-for chance to show what she could do. Now to make good! With eager eyes and a light heart she set off down the street. She did not know that the other five editors had been indifferent to her plea that they try her out, because two or three came along daily with the same plea. The sixth had employed her because he had happened to need an extra reporter and because of her agreeable personality and her evident intelligence. If she made a pleasing impression on him, he judged she would make one on the many people she would have to interview. She had told him smilingly that he was the sixth editor she had interviewed that morning. This denoted frankness and that quality much desired in a reporter, persistence. Then she was a college woman.

The young man who had applied for the same job half an hour before had not bothered to remove his hat on entering the room, he did not look physically strong, and he had been too eloquent in setting forth his own superior powers.

The college person has the advantage. A college man or woman usually has the advantage of being familiar with the ways of society and of being more or less interested in various sports and the topics of the day. Then, too, college people usually have a general knowledge of

history and economics and are trained in writing. Self-educated men have made excellent reporters, but they seldom advance very far in the profession. A wide, constant curiosity to learn things is a very desirable quality in a general reporter.

Two ways of entering the newspaper field. There are two ways of entering the newspaper profession: through the rural newspaper and through minor jobs on a big city newspaper. On the smaller paper a newswriter gets wider experience. He does everything from setting type to writing advertisements and an occasional editorial. On a larger staff it is more difficult to get opportunities to make one's abilities known or to stand out from the crowd.

The copy reader. In the direct line of promotion for the reporter is the position of copy reader. This position has the advantage of fixed, shorter hours, of a regular salary, and of little extra or emergency work. The salary, however, is a moderate one, ranging from twenty-five dollars in a small office to sixty-five dollars in a large one. The work is largely routine, but it carries with it the pleasure of learning the news before anyone else. The copy reader must keep well informed on current topics and must have a genius for detecting any and every sort of error. His business is to correct, cut, and discard; and so he gets blamed by everyone on the staff, from the cub reporters to the editor in chief. He gets precious little praise or credit for his work, but he does get splendid training for one of the higher newspaper positions.

The managing editor. The most needed qualities in a managing editor are good judgment and the ability to deal successfully with all sorts of people. He really supervises what goes into every column of the paper except the editorial page. His big job is to get the news. If gold is found in the bottom of the Arkansas River, it is his busi-

ness to decide what is the quickest and best way of finding out all about it and then getting the news. His salary ranges as high as thirty thousand dollars on a large paper.

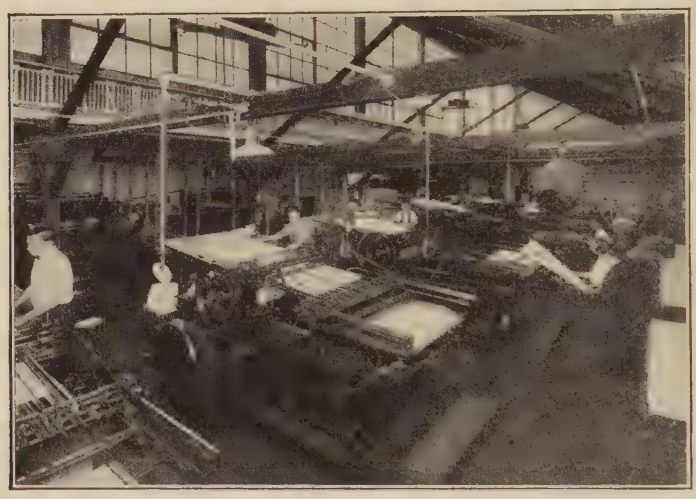
The editor in chief. A newspaper does not rise above its editor in chief. He is the one who determines the policy. His page is the one that gives the distinction, or lack of it,

A PRINT SHOP IN A SECONDARY SCHOOL

to the paper. The influence he can wield is enormous. As a rule there is a daily meeting of the editorial council, composed of the editor in chief, the editorial writers, the managing editor, the city editor, the foreign editor, usually the Sunday editor, and the special writers. The events of the day are discussed. The editor in chief indicates the editorial attitude toward them and assigns the various topics. The salary of an editor in chief in New York City, which is said to be the greatest newspaper city in the world, ranges from $15,000 to $35,000.

On a large staff there are dramatic and music critics, book reviewers, and many special writers for sports, fashions, financial news, etc. The man or woman who becomes an authority along some special line is always in demand.

Foreign correspondent. A post eagerly sought by newspaper men is that of foreign correspondent. This means



PRINTING PRESS

travel abroad and interesting and valuable experience. The larger American newspapers maintain correspondents in the more important capitals of Europe. The foreign correspondent is usually "on his own." He chooses his own topics, since all routine news is taken care of by the different press associations. He must have the ability to gain the attention and confidence of important people. This is more difficult to do in Europe than in America. People are more prone to keep the reporter out. After he gets his news he must be capable of judging its importance. Cable messages are expensive.

During the World War the report of a single battle cost thousands of dollars. Of course that was at war rates. In ordinary times a rate of seven cents a word is charged if the message can wait its turn to be sent; if it is important (and it usually is) it is sent at the commercial rate of twenty-five cents a word. An item of news has been known in New York eleven minutes after it occurred in Italy. The less important reports are sent by mail.

Test yourself. To test yourself in newspaper writing you have to wait for neither tide nor time nor friendly family pull. You can write reports for your high-school paper or annual, or you can send in news items to your local paper. If they are interesting enough and are well written, they may be accepted. Maybe they won't be. If you fail to get into print on your first attempt, go over a copy of the paper carefully. See what kind of articles the editor considers of most importance. This, of course, is shown by the places given in the general make-up of the paper. Read the editorial page to get the editor's point of view. Be on the alert for news items. When you run across something of interest, write it up and send it in. The only way to learn to report is by reporting. Newspaper work may mean hard work; but if it brings pleasure and interest, you won't mind the work.

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CHAPTER XXVI

LAW

A few years ago a young man accused of a vicious crime admitted his guilt. Do you think the judge should have sentenced him without further trial? The fact is that a very skillful criminal lawyer was employed. For weeks the trial proceeded, the lawyer endeavoring to convince the jury that the young man was insane. In the end the young man was sentenced to life imprisonment. The aim of every effort of the lawyer was to lighten the punishment; he admitted that the young man was guilty. Did this lawyer do right? Do you agree with the statement "The aim of an honest lawyer is to see that justice is done, and not to prevent a guilty person from being punished"? Can you mention a case where a lawyer demanded more than justice for his client? Throughout the past centuries men have been developing rules for the government of the relations of people with one another. As more rules have been made, more lawyers have come into existence. What should the lawyer have to do with these rules or laws? A short time ago an instructor in a law school, having just finished a lengthy discussion of a point of law, asked for questions, and one young man said, "Professor, that's very clear; but what I want to know is, how we are going to get around that?" What is your opinion of the type of future lawyer who would ask such a question? In the minds of many people is a suspicion that nearly all lawyers are dishonest. Can you explain this feeling? If you were a lawyer, how should

you attempt to change this attitude? Is the work of the lawyer a really necessary social service?

Small amount of time spent in court. Some people think that all a lawyer has to do is to try cases in court and overcome juries with his eloquence. If you stop to consider that in most places court does not convene more than six times a year and that even then there are a large

LAWYERS' CLUB AND DORMITORY, UNIVERSITY OF MICHIGAN

number of lawyers employed on different cases, you will see what a small part of a lawyer's time is taken up by trial of cases in court. Let us suppose that Mr. A, a lawyer, tries two cases in court each time that court convenes — once in two months. Each case requires five days. What percentage of his time for the year is actually spent in court? We must remember that Mr. A spends more time in court than most trial lawyers do, and that for every trial lawyer there are two or more lawyers who do no court work at all. Many men who are excellent office lawyers do not attempt court work.

What are these men probably doing? Writing wills and deeds, attending to the legal end of buying and selling real estate, settling estates of deceased persons, collecting debts for their clients, preparing briefs for presentation of cases at court, getting people together and settling difficulties out of court. The aim of a conscientious lawyer is to keep his clients from expensive court proceedings by having cases settled out of court.

MISS MARGARET H. KIDD OF THE SCOTTISH BAR

The first woman lawyer to appear before the House of Lords

The lawyer's life a busy one. The life of a lawyer must be one of almost constant study. He must be thoroughly familiar with law in general and, in addition, must be constantly looking up the law on specific cases. He must be familiar with what has been done in the past in connection with every case that comes up. A case at law means a constant clash of wits, and the lawyer who does not have the facts soon falls by the wayside. Do you think most lawyers would want to be limited to an eight-hour working day? Many persons think that all a judge has to do is to sit from ten to four listening to lawyers and witnesses, charge the jury, and wait for the verdict. On the contrary he frequently works far into the night studying cases, hunting up similar cases, and writing lengthy "opinions." He desires that his decisions may stand, and he must give reasons and cite the law in all his decisions.

Advantages and disadvantages of being a lawyer. Thus you see that the lawyer has no easy time. His time is not always his own. He is constantly dealing with trouble, and with people who are in trouble. Usually his income is uncertain. He may get a large fee today and receive nothing more for several months. He is constantly dealing with men who are attempting to defeat him, and he must be always on the alert. He must be prepared at all times for those who would challenge his knowledge and ability. He occupies a position of respect and power in his community. His dealings with many people put him in touch with opportunities through which he may make profitable investments and avoid unprofitable ones. He is in line for a position as a judge. Frequently he is selected to represent his locality in the legislature or senate or in some other important position. A young lawyer starting in business for himself usually has a number of lean years, but most young lawyers begin in the lesser positions in established law firms.

Ask a lawyer of your acquaintance for advice as to entering the profession. Among other questions try to get answers to the following:

1. Would you become a lawyer if you had your life to live over again?
2. What are its greatest handicaps?
3. What are its greatest advantages?

A problem. You have decided to study law. You have finished high school. A law school offers to admit you in full standing to the law course. Should you enter? It was stated above that laws consist of rules whereby people may get along together. At the end of your high-school course do you know enough about how people live and think and act to enable you to assist in righting their wrongs and adjusting their difficulties?

If you are looking forward to the profession of law, you will probably study some of the following subjects (number them in the order of their importance): Latin, algebra, English, German, French, history, physics, civics, chemistry, problems of democracy, manual training, music, geometry, arithmetic, vocations. Ask your teacher to criticize your selections.

Necessary training. The American Bar Association and the National Association of Law Schools demand that a school desiring to become a member must require a four-year high-school course and at least two years of college work before taking up the three-year law course. One third of the hundred and forty-six law schools in the United States meet this requirement. Many law schools offer evening courses for persons who work during the day. These schools require at least four years instead of three.

The profession overcrowded. The profession of law is greatly overcrowded. Many young men prepare for law and, not being able to find sufficient business, drift into insurance, real estate, bond salesmanship, or other occupations. This country could probably get along with one third as many lawyers as we have. However, an education in law is a very valuable one, and many persons who intend to go into business, or social work, or politics, or foreign or diplomatic service take a full law course.

Why is an education in law more valuable for an ordinary citizen than an education for many other professions? What is the value of your study of the different vocations? You probably agree that it helps you to understand how people get along in this world. So a knowledge of law makes one acquainted with how people have got along for the centuries past and how they can continue to get along peaceably in the future.

SCHOOL OF LAW AT A STATE UNIVERSITY

Courtesy of the University of North Carolina

Can you think of trouble any of your acquaintances have had that might have been avoided if they had known law?

Law, like all other professions, is being specialized today. The country lawyer usually covers a large field, from criminal court work to patent work. In the cities lawyers are able to stick to one branch, such as criminal law, damage suits, real-estate law, admiralty law, patent law, etc. Large law firms in cities handle all kinds of cases, but have specialists for the various types.

Look up the meanings of the following words: admiralty law, patent law, criminal law, damage suits.

Personal qualities required. A person planning to enter law should have the following characteristics (check the ones that you think you have):

1. Ability and inclination to go to the bottom of any question and get all the facts.

2. Ability to weigh evidence and sift out facts from non-facts.

3. Ability to stay with a job until it is completed.

4. Ability to attend to little things. The dotting of an *i* or the crossing of a *t* may mean success or failure.

5. Ability to use the English language correctly and fluently. Of course this includes ease and fluency in speaking in public, but, even more, correctness and clearness in written work.

6. Ability to talk fluently, but to keep his counsel unless he has something worth while to say. Our best lawyers are quiet, modest, unassuming men.

7. High ideals. Perhaps the most important characteristic of a successful lawyer is moral character. He should be able to say "no" when it should be said. He should be willing, if necessary, to offend his best friend that right may be done; to hurt his own financial and apparent

professional success that justice may be secured. He must be above the meanness of the hack and the shyster lawyer.

8. Regard for the ideals and secrets of his profession as too precious to be affected by anything but right dealing.

A lawyer's income. The young lawyer going into an established firm may expect to receive from $75 to $150 a month at the beginning, this being gradually increased as he gets experience and becomes more useful to his firm. Replies to questionnaires sent out to graduates of the Harvard and Stanford law schools a few years ago indicate that for the first year the income is about $600, for the fifth year about $2650, and for the tenth year about $5750. This is annual return in money and does not take into account office rent and other expenses. These, however, are only averages. Some made much more; others made much less. In law, as in all other professions, those who have intelligence, integrity, ability, and willingness to do hard work reach the top. Success keeps always out of reach of the "rester."

Women lawyers. Of the hundred and sixty-two thousand lawyers in this country nearly four thousand are women. A woman is assistant attorney-general of the United States. Another is judge of a state supreme court. Women have not been in law very long, and people still question their ability to succeed; but a few are stepping out in front, and others will follow. Women are especially good in careful detail work, such as probate work, abstracting and examining titles, and in income-tax work. They are found to be especially successful in dealing with cases involving women and children. Judges commend them very highly for their success in this type of work.

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CHAPTER XXVII

LIBRARY WORK

Lanford is a typical mining town. It has a population of ten thousand people, 40 per cent of whom are foreign-born. A few years ago there was no library there and no bookstore. Nobody in the town read or seemed to care to read anything except the daily papers and a few magazines. The children in the school had textbooks to read — nothing else. Then a modest notice appeared in one of the papers announcing the opening of a small public library. When the doors were opened, grown-ups and children came pouring in. In one week twelve hundred people had registered to borrow books. Whole shelves were swept clean every day. Some of the books never got back on their shelves. They were reissued as soon as they came in. Miners, loaders, carpenters, laborers, plumbers, motormen, people of every nationality there, flocked to the library. So eager were the children that they came and stood for an hour or more waiting for the doors to open.

Was it worth while to have a part in that library?

"Boys," said big Jim Dawson, "I believe I hear Jake's dog team!"

Every man in the logging camp turned an eager ear. A distant "Hello!" brought forth hoarse, ear-splitting cries of welcome. Men forgot their weariness and boredom, left off their quarreling and disputes. The books had come! Four hundred miles they had traveled by rail, then one hundred by canoe. The last hundred and fifty

miles they had been drawn by Jake's dog team. Now they were here! With eager, fumbling fingers the men opened up the boxes. They had something to read.

Was it worth while having a hand in sending these books?

Mary Gresham looked longingly toward the door from her narrow white bed. If only the nurse would come in—

A THOUGHTFUL LIBRARY SERVICE

Patients in hundreds of hospitals look forward eagerly to the always timely arrival of fresh library books

to take her temperature, if nothing else. Mary was only thirteen and got ever so tired lying there day after day all alone. She would have to stay at least three weeks longer, the doctor had said so just that morning. Mary folded her thin white hands on the cover and turned her head away, trying to keep back the tears.

"Good afternoon!" said a cheery voice, "should you like something to read?"

Mary turned her head and saw a sweet-faced woman pushing what looked like a bookcase on wheels. It stopped right by her bed. "I have some delightful stories here," announced the friendly voice. "Here is one called *Wind in the Willows*, and here is another one called *Little Women*, which I read at least a dozen times when I was about your age. Shall I read a bit in it? Then if you like it, you may keep the book until you finish it." Twenty minutes later Mary was left alone; but this time her eyes were bright with eagerness instead of tears, and she lay contentedly on her pillow, a fascinating book propped up before her.

In the next room a splendid book on radio was left with Jimmy Bolton, and then through the ward the bookcase went, leaving behind it cheerful faces and new interests.

Is it worth while having a hand in work like that?

"Got a promotion and had my salary raised $15 a month!" announced Everitt Webster at the librarian's desk. "That reading course you laid out for me did the trick. I really owe it all to you."

Should you like to help in that way?

"This is a great piece of work — just the thing I need on that case of Goldhill!" exclaimed Mr. Meritt Dawson as he glanced through a new book which he found on his desk. "Who in the world sent it?"

"Why, the public library sent it," explained his secretary. "They say in the letter there on your desk that it is a new book on trusts which might be interesting to you."

"Just what I need," murmured Mr. Dawson, absorbed in reading. Presently he roused himself. "Miss Smith,

this was a mighty thoughtful thing for any librarian to do. Do they do this sort of thing often?"

"Yes, sir, I think they do. My sister works in the library, and I was amazed to learn of the different things they do. If a new book on a special subject comes in, it is

A TRAVELING LIBRARY SERVICE

Scores of counties throughout the country maintain a traveling library for those sections having no library of their own

sent out to some man who will be particularly interested in it. They send books to lots of people in the country. Then they keep in touch with dozens of invalids who are at home, besides sending a regular librarian twice a week to the different hospitals with a whole raft of books. And they take some of the older books and magazines to the jail for the prisoners. I think they do splendid, helpful things. You know you spoke of how much I had im-

proved since I came here. Well, I've just about finished a study course in secretaryship they made out for me."

Is a librarian's job worth while?

More side lights on the librarian's job. Sometimes books are sent by pack mules. Sometimes duplicate copies of magazines are dropped to isolated homes by air mail carriers. You see, the business of the public library is to serve, to reach as many people as possible. Traveling libraries are sent to rural schools, and they mean a great deal to the teachers and the eager youngsters. By actual count ten thousand children get the benefit of the story told at the regular story hour at the library in Portland, Oregon. It is broadcast daily for those who live too far away to be present. In 1936 well over two thousand ships, besides many coast-guard stations and lighthouses, received libraries.

Physicians recommend reading. Books and magazines have done so much good in hospitals that many of the large ones maintain libraries of their own. "Thank the Lord for the library!" exclaimed a man in one of the United States hospitals for veterans. "I don't know what men penned up as we are would do without books!"

"We go to the library for the warmth of our bodies and the good of our souls," said a day laborer who later became a well-known story-writer.

Get acquainted with your library. Do you know how to use a library? Before you come to class make a list of six articles published in the better magazines during the last three years on the library or on some subject in which you are particularly interested. That looks like a large order, and it is, unless you consult the Readers' Guide. If you are looking up articles on aviation or some other technical subject, look through the International Year-

book and the Industrial Arts Guide. Every month these lists of the titles of all important articles in a great number of magazines are sent out to the different libraries; then at the end of the year they are compiled into a bigger, cloth-bound book. You will find that some of these books contain lists for two and three years. The American Library Association issues a detailed catalogue of the best books on a wide variety of subjects, giving a brief description of each book.

Training necessary to become a librarian. The librarian in your library is an important person. She can do a great deal of good and bring happiness to many people. She has had to train for her job. Any librarian must have at least a high-school education. In an increasing number of libraries she must have college work as well as a year's special training before she can get employment. Some library schools admit only college graduates for training. You can get a list of library schools by writing to the American Library Association at Chicago, Illinois. Most of them offer one-year courses. Some offer one year for general library work and a second year for some special line, such as children's library, industrial (libraries in manufacturing establishments etc.), medical, school, and college. Since 1911 the Carnegie Corporation has given over $26,000,000 for library service, nearly half of which was for public library buildings. One million went to the University of Chicago Graduate Library School.

Personal qualities needed. To be successful a librarian must have more than a good general education and special training. If it is possible, spend fifteen minutes or more in your library just watching things. Then write down the qualities you think one needs most to be a first-class librarian. Remember that she has long hours and must be on her feet much of the time. Then there are all sorts of

CHILDREN ARE AMONG THE LIBRARY'S MOST EAGER PATRONS

people of all ages to deal with, many reports to make out, and books to be ordered and labeled and mended. Order and quiet must be maintained in the reading rooms; there are a thousand and one calls for references, book lists, etc.; and, with it all, the library must be made a friendly, inviting place in which to sit and read.

LIBRARY IN A LARGE INDUSTRIAL PLANT

Demand for trained librarians. The use of public libraries in the United States has increased more than 98 per cent since 1926. Public school and rural libraries are the three fields offering greatest possibilities of expansion. Openings are reported in every part of the country. About 90 per cent of the librarians are women. Usually the department heads in the larger libraries are men. Because there are few men librarians, those who enter the profession are advanced rapidly, provided they have the necessary ability.

Salary. The librarian's salary at present runs a little lower than the teacher's, ranging from eight hundred dollars up to forty-five hundred dollars. The head librarian in some of the largest libraries receives ten thousand dollars. Find out if you can more details about the salaries from some article listed in the Readers' Guide. You might find something on the subject in the current issue of the World Almanac. The International Yearbook, issued each year, has much interesting information. Some of the references at the end of this chapter take up the matter of salaries.

Advantages outweigh disadvantages. A librarian works long hours, from forty to forty-five each week. Frequently she has night work and sometimes even Sunday work. This is not true in industrial or specialized libraries; but there the librarian usually has a shorter vacation, of only two weeks. A librarian gets a fair living wage, and in public libraries a month's vacation with pay. She has the joy of knowing books. As someone has said, she carries in her pocket the keys to all the treasures of literature, and that in itself is a priceless possession.

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CHAPTER XXVIII

MEDICINE

A doctor's service to humanity. Down on the Isthmus of Panama many years ago an attempt was made to dig a canal. After a large number of men had been lost through sickness, and other misfortunes had befallen the project, the attempt was given up. Two diseases were largely responsible for the failure: malaria and yellow fever.

Today we have the canal with millions of tons of freight and thousands of passengers passing through it each year. Do you know why we have it? A commission of doctors, of whom Major Walter Reed was the leader, proved that the mosquito carries the germ of yellow fever from one person to another, and that people can catch yellow fever in no other way than through the bite of an infected mosquito. A few years before Dr. Reed's discovery some doctors in Italy proved similarly that a mosquito is the carrier of malaria. Acting on this knowledge another doctor, Colonel Gorgas, found ways practically to free the whole Canal Zone from these two diseases by screening the houses and preventing mosquitoes from breeding. Then, when people could live and work there safely, the great Panama Canal was completed. This is only one of the many instances of the valuable services rendered by physicians. They are among our greatest benefactors.

Have you thought to what a degree success in life depends on health? List half a dozen of the most successful

people you know. Do they appear to have good or poor health? Find out how many days of school were missed in your school last year on account of sickness. How did that compare with the number of days' absence from other causes? Find what percentage it was of the total days missed. What are your conclusions from this?

A PHYSICIAN AT WORK

Advance in medical skill. Last winter an epidemic of scarlet fever passed through the town of Auburn. If it had come three years before, many persons would have died. As it was, all the victims lived because in the meantime a doctor had discovered a serum that prevents or lightens scarlet fever. A few years ago most cases of mastoid trouble were fatal. Now very few are. When our great grandfathers had appendicitis they called it inflammation of the bowels. Many of them died of it. Now an operation for appendicitis is not considered serious. Today

even leprosy is curable, and people are being sent away from leper colonies presumably cured.

Not a great many years ago all amputations and other operations were performed without an anæsthetic. Some people died of shock in the operation. Today the person undergoing the operation knows nothing of what is going on; and if the after pain is great an injection of morphine or the use of some other drŭg relieves it. Health is essential to success in anything. If this is true, then the doctor must be a very necessary person.

Personal qualifications of a physician. The physician leads a very busy and interesting life. If he is engaged in general practice, he is liable to receive a call at any time in the day or night. He meets every ill that flesh is heir to. He may sit for hours at the bedside of a sick person who is dangerously ill, and frequently he is forced to reassure the friends as well as the patient. Much of his work is hard and nerve-racking on account of the great responsibility, but he can feel that the service he gives is priceless.

To meet the demands of the profession the physician should have a strong body and almost unlimited vitality. He must be able to keep a clear mind and a buoyant, hopeful outlook. Frequently the optimism and apparent confidence of the doctor have more to do with the cure than has any other treatment. In fact, to regain their health many persons need only to be completely reassured by one in whom they have confidence. Not many years ago a good physician was told by an incompetent one that he had serious heart trouble. He immediately began to worry, imagined all sorts of serious symptoms, and before long had become almost a nervous wreck. He was completely cured, however, when after a thorough examination at a clinic conducted by physicians of the

highest standing he was assured that he was merely in a run-down condition and had no heart trouble whatever. Such is the influence of personality and psychology in the treatment of disease.

The physician must be able to carry an atmosphere of confidence and buoyancy into every sick-room. He must

A VISIT FROM THE DOCTOR

A physician's duties sometimes lead him into distant lands. Here the ship's doctor from a coast-guard cutter is shown paying a visit to an Eskimo family in Alaska. (Courtesy of the United States Coast Guard)

be thoroughly sincere in all his dealings, always putting his patient's welfare before his own. Many a physician deliberately injures his own financial prospects by being true to his ideals. He must love his work and be willing to give his very life in service to his fellow men. Dr. Wilfred Grenfell of Labrador is a shining example of what a doctor with a vision of service may do. Medical missionaries who receive only enough to support them find their work fascinating in the extreme. Such work is

often absolutely necessary before other kinds of missionary work can be done.

The surgeon. The surgeon has a considerably different routine from that of the doctor in general practice. His work is generally done in a hospital, and his hours are fairly regular. His work requires great skill and steady nerves. A slight mistake may cost the life of his patient. Much more training is necessary for the surgeon than for the family physician. He is expected to know as much as the general practitioner and to have, in addition, special surgical training. The general surgeon, who operates on all parts of the body, must have a broader training than the special surgeon. A number of specialists do much surgical work connected with their specialties: the eye specialist performs delicate operations on the eye; the throat specialist removes tonsils and adenoids; the ear specialist operates for mastoid trouble; the orthopedist corrects or prevents foot deformities.

Public-health work. Is there a board of health in your community? What is the business of the board of health? Make a list of the things that it does. Schools usually have a doctor who looks after the health of the children. Make a list of the things you think your school physician does, and, through a committee from the class, find out from him what additional duties he has.

The physician who does public-health work or school-health work is paid by the community. His work is more prevention than cure of disease. He assists the health authorities in seeing that health laws are obeyed and teaches people how to keep well and avoid disease.

Many a young physician begins practice in public-health work. The work furnishes training in the various phases of medicine. See the books mentioned at the end of this chapter if you are interested in health work.

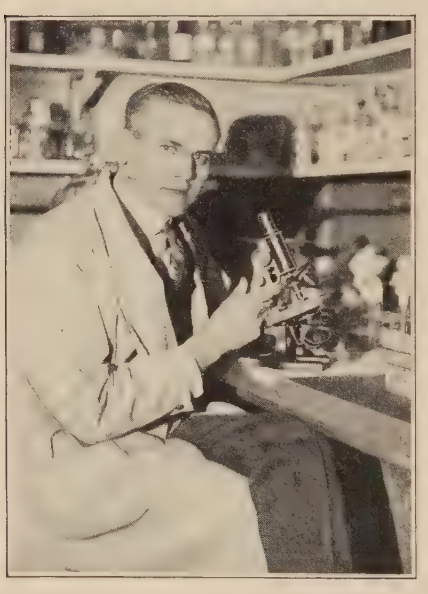
The doctor who takes up public-health work must be willing to live on a moderate salary and to miss some of the thrills that come to a man in private practice. His work is that of protecting and educating the public. A few years ago it was considered improper for a physician to write about health for publication. It was considered that he was robbing himself and his fellow doctors of the professional right to cure and receive the reward. Now, however, it is recognized that a doctor is doing a service to his fellow men if he publishes in a newspaper or magazine information that will help people to keep well. Not only this, but the man who does service for a larger and larger number of people never loses any respect.

Company physician. A new type of work for physicians is that of house or company physician. As the number and size of business and manufacturing organizations has increased, it has become the custom for them to employ physicians and nurses to look after the health of their employees. Here are excellent opportunities for wide-awake young physicians to use their knowledge and skill in planning and handling the solutions of large health problems.

A good opportunity is offered in hospitals, sanitariums, and other institutions for young men and women physicians who are careful, methodical, and able to direct the work of other people. If you are a leader this type of work should be attractive.

The doctor's income. If you enter the practice of medicine you must be willing to live on a moderate income. A few years ago three hundred and seventeen persons who had graduated from the Harvard Medical School were asked how much they were earning. Those who had been out in practice one year reported average earnings of $623, an average of $52 a month; those out ten years, $3789;

and those out thirteen years, $4680. To be sure, some make much more and others much less. The doctor is not free to do some of the things that other people may do to increase their incomes. It is not in accordance with professional ethics for him, so he is not permitted to advertise; he must depend on his success to bring him patients.



A RESEARCH DOCTOR WITH MICROSCOPE

This Philadelphia bacteriologist discovered a serum for treatment of rheumatic fever

Education and training. To become a physician you must finish high school and two years of college before entering medical college. Many of the better medical colleges require college graduation for entrance. Even then the entrants are carefully selected. Recently out of six hundred applicants for entrance to a certain medical school, only one hundred and thirteen were admitted. In this school about 50 per cent of those who enter are able to graduate at the end of the four-year course. The graduate must spend at least one year as an interne in a hospital. At the end of this time some go out and build up good practices in a year or two; others find it much slower. It is frequently a good plan to begin with an experienced and well-established physician, especially if one is entering surgery or other special work. The physi-

cian who would have real and lasting success must be a thorough student, taking not one but all the better medical magazines and buying the latest books dealing with his subject. The challenge here is to the real scientist, the man eager to "find out" the last thing there is to be learned in his profession. In his premedical preparation he should take much work that will enable him to understand people and get along with them. History, civics, sociology, vocations, English, psychology, and ethics are important. Besides these he should do exceptionally thorough work in science. In the premedical work special care should be given to chemistry, physics, zoölogy, anatomy, physiology, and bacteriology. In order that they may have thorough training in all these subjects, more than half the young people entering medical college are taking a four-year college course first.

Have you the personal qualifications? Do not think of taking up medicine unless you are physically strong, have steady nerves, have an interest in people, and are a thorough student with ability to work long hours at difficult tasks. You must be able to work long periods without much encouragement. Don't try it unless you are satisfied with nothing but the best and are absolutely honest with yourself and with others. Surely no one needs more than the physician to check up any problem severely and accept nothing but the correct answer.

The future in the medical field. No one entering the medical field need fear that he will some day be out of a job. The future of the physician is secure, provided he is a student and keeps up to date. New things are constantly being discovered in the profession, and there is no one who may not have always before him the vision of the discoverer.

Women physicians. All that has been said about the profession pertains to women. They are proving that they can do in medicine anything that a man can do. Of about one hundred and seventy thousand doctors in this country, more than 6 per cent are women, and the proportion is constantly increasing.

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CHAPTER XXIX

NURSING

What sort of nurse shall you ask for? Suppose your father is away from home on important business when your mother becomes seriously ill. Your doctor tells you it will be necessary to have a nurse for three weeks, possibly longer. He gives you the names of the hospitals and a nurses' registration bureau in a neighboring city, saying you can secure a nurse through one of them. The responsibility of getting the most competent nurse possible rests upon you. What sort of nurse are you going to ask for? How old should she be? What special personal qualifications should she have?

There are other questions to be considered. The doctor has told you the nurse must be engaged for three weeks, possibly more. What salary must you arrange to pay her? Will she help to prepare your mother's meals? Will she take care of her own room? of her personal laundry? What time off each day must you arrange for her? How many hours on duty should you expect from her daily?

Copy these questions, giving the answers as briefly as possible. After those you are unable to answer leave a space; and when you have finished reading this chapter, fill in the correct answers. Any outside information concerning a nurse's duties that you can bring to class will be helpful.

In the meantime. It may take a day or two before the nurse can reach you. In the meantime you might get in

touch with the community, or visiting, nurse and ask her to come in. She will not only give attention to your mother, but will teach you how to care intelligently for her in the absence of any nurse. She is especially trained to do just this.

A nurse's training. No reliable hospital or nurses' training school will admit anyone under eighteen years for training. Twenty is the usual age for admittance. Then the applicant is put on a term of probation of from two to six months to see if she has the necessary qualifications to become a successful nurse. From two to five years are required for graduation; most of the better hospitals require three years. In the hospital she learns about the nature and causes of disease and the different methods of treating them. She learns how to handle sick people wisely and tactfully. She learns what is necessary to become a doctor's assistant in operations and treatments. She attends lectures and regular classes and spends long hours on duty in the hospitals. For public-health nursing there are postgraduate courses varying in length from six weeks to two and three years. So you see any graduate nurse you get will be well trained to look after your mother.

Personal qualifications needed. A questionnaire was sent out to a large number of nurses asking them what one personal qualification they thought was most necessary for successful nursing. A great variety of answers came in, naming tact, neatness, firmness, clear mind, pleasing personality, patience, good health, cheerfulness, self-control, obedience, and imagination. Why the last three? Can you mention any other qualification that you yourself would like in a nurse? Which one qualification do you consider of the most importance? Why? From the nurses' point of view good health ranks first in

importance. What three qualifications shall you specify in your request for a nurse for your mother?

Salary. The salaries of private nurses vary in different sections of the country, owing to the varied costs of living, the qualifications of the nurses, and the responsibilities they must carry. As a rule, salaries are higher in the Far

BABIES ON A HOSPITAL SUN PORCH

West and lower in the South. An institutional nurse receives her full maintenance, with an additional $600–$4000 according to the size of the hospital and to the responsibilities assumed. Salaries of public-health nurses range from $1000 to $1700. Executives in both institutional and public-health fields receive from $2500 to $8000.

Hours on duty. In a hospital regular hours are rigidly enforced. Where the twelve-hour shift is in force, a nurse is on duty from seven to seven. She has two hours off each day and probably two half days each week. She has an annual vacation of from two to four weeks.

When there is only one nurse on a private case, she may have twenty-four-hour duty. She is supposed to have at least six hours for sleep and one hour in which to get out into the fresh air. Is this sufficient time off for rest and recreation? Why? In 1935 six hundred hospitals in the United States had eight-hour-duty schedules, thus giving their nurses "time to live."

Actual work done. Now for the actual work that you can expect from your mother's nurse. She will be there to do everything possible to help her patient recover. She may prepare the food for the patient. Her hospital training included invalid cookery. What she does beyond the actual care of the patient under her charge depends on the circumstances of the family and her own personal inclination.

Educational entrance requirement. In the better hospitals — and it is unwise to enter training in a second-rate hospital — no girl is accepted for training with less than a four-year high-school course or its equivalent. Some of the better schools of nursing require five years of training — two years of prenursing academic work and three years of theoretical and practical training.

The public-health nurse. A postgraduate course is ordinarily required for a public-health nurse. Why should further training be necessary for this work? Her salary, too, exceeds that of nurses in institutional and hospital service. Let us see some of the things she does; then, if you can, tell why a public-health nurse should have more training and receive more money for her work. A public-health nurse is a graduate nurse doing any kind of social work concerned with the general health of the public. In China, we are told, a doctor is paid for keeping people well. If a man gets sick he lays the fault at his physician's door and considers a change in medical advice. The chief aim of the public-health nurse is the prevention of disease and

disaster. She should always "leave behind her a more hygienic way of living, a more sanitary way of cleaning, a more rational way of dressing, a more regular routine of eating and sleeping."

Different types of public-health nursing. There are several different types of public-health nursing. There is the

A MEN'S WARD

infant-welfare nurse, who makes systematic, regularly timed visits to babies in her community, gives lectures, holds conferences where babies and small children are weighed and examined, looks after children too young to be in school, and does everything in her power to keep all small children well. Then there is the school nurse, who, through frequent inspection and talks, keeps close watch on school children in respect to any condition which might interfere with good health and good school work. There is the tuberculosis nurse, who assists doctors in

clinics and goes to the homes to show how to carry out the doctors' orders for the care of the patient and for the protection of the rest of the family. There is the industrial nurse, who looks after the health of the workers in mill, factory, store, or mine. In addition to actual care of her people, she seeks to bring about the best lighting, ventilation, working hours, etc.

Someone has said that to succeed a nurse needs "grace, grit, and gumption." A public-health nurse needs a little bit more of each. Can you see any good reason why she should need further training beyond graduation for her work or why she should receive a comparatively larger salary?

Some advantages in the nurses' profession. Does the profession of these white-gowned, white-capped, serene-faced women and men interest you? Thousands of men are nurses. In the great untilled field of nursing in mental hospitals, which contain more beds than all the other hospitals put together, there is a definite need for trained men nurses. Here are pioneering opportunities for both women and men of courage and vision.

Any nurse in training gets her living expenses. She meets many kinds of people and sometimes makes pleasant friendships. She may travel. She has a profession which will enable her to earn a living anywhere in the world. The work is seldom monotonous. A private nurse is largely independent. She can dispose of her time as she pleases. A public-health or institutional nurse has regular hours and annual vacations with pay. Each type of nurse has the assurance that she is helping her fellow men in a very definite way.

Some disadvantages. There are some disadvantages. A private nurse when on a case has practically no time for social engagements. Her employment is more or less

irregular. A study made at Indiana University shows that a private nurse works on the average twenty-six weeks a year. She is not particularly well paid, considering the fact that at all times she must maintain living quarters. This irregularity of employment is, of course, not true in institutional or hospital work. Occasionally,

GROUP OF HOSPITAL NURSES

however, a nurse becomes favorably known to one or two physicians and can count on constant work with their special cases.

Future of the work. The field of nursing today, with over 350,000 registered graduate nurses, is overcrowded. Yet according to more than one authority, in spite of the oversupply, hospitals are unable to get enough competent nurses to staff their wards. There are too many to earn an adequate living, yet too few equipped to meet the best modern standards. In 1935 there were on the accredited list of nursing schools 309 fewer schools than

in 1932; there had been 17,000 fewer students and almost 3000 fewer graduates in 1934 than three years earlier. This shows that the National League of Nursing Education is on the way to attaining two of its goals: (1) cutting down the number of nursing schools connected with hospitals of less than one hundred beds, and (2) raising the standards for the student nurse, thereby automatically decreasing the supply of graduate nurses.

So we see in nursing, as in other professions, that only the strong in purpose, in intelligence, and in determination may be sure of success. "Those who know it most intimately believe that in health and variety of opportunity, in possibilities of service, and in positive human interest no profession of today offers larger returns."

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Nursing Schools — Today and Tomorrow. The National League of Nursing Education, 50 West 50th Street, New York.

Some Facts about Nursing. Nursing Information Bureau of the American Nurses' Association, 50 West 50th Street, New York.

Reports on the lives of the following persons should be interesting: Clara Barton, Edith Cavell, Florence Nightingale. Write to the librarian of the American Red Cross, Washington, D.C.

CHAPTER XXX

SOCIAL WORK

What should be done in this case? One morning there was a knock at Mrs. Hill's back door. Looking out, she saw a man unshaven, ragged, and dirty — clearly a tramp. He wanted a cup of coffee and some breakfast. It was long after the breakfast hour. Mrs. Hill was cleaning and had no time to prepare another meal. Should she give the man fifty cents and tell him to get his breakfast down town? That would be the easiest thing to do. It would ease her conscience and get him his food. But would it be the wise and kind thing to do? Had the man tried to get work? Would she be encouraging laziness? Would that fifty cents do more good toward buying long stockings for poor little Jimmy Bean?

What should you have done?

Did you ever put a quarter or a dime which you needed yourself into the hat of a beggar who was apparently blind and find out later that the man was a fake? Do you know of a family who needs help? where the mother is ill or the father has been out of work for a long time? Do you know of a small baby who is suffering from lack of intelligent care? of a foreign family whose members are lonesome, bewildered, and in need of assistance?

Suppose something difficult: Suppose you were that tramp at Mrs. Hill's back door. Should you want fifty cents given you to buy your breakfast or should you appreciate more an opportunity to get regular work which would enable you to pay for your breakfast yourself?

A community chest. In Cleveland, Ohio, it would be an easy matter to dispose wisely of that tramp. There, as in an increasing number of other cities, the citizens have a community fund which takes care of all cases such as that mentioned above. An explanation to the man, a call on the telephone, and car fare for the trip to

EXAMINING THROATS AT A SUMMER CAMP

headquarters, and you could rest assured that the man would be given not only his breakfast but an opportunity to shave, some warmer clothes, and, furthermore, permanent assistance.

Where such a fund and its accompanying organization is in service, housewives need no longer feel troubled at turning such people from their doors. They have contributed to the community fund. They know interested, well-trained men and women are there to see that its funds are wisely distributed. Contributors feel they have done something constructive and more than temporarily

helpful in giving to such a fund, for in the social service made possible by such money, *preventive* measures are studied and applied. Many men and women believe a great deal of poverty, crime, sickness, and unhappiness may be prevented, and they enter the field of social service to make a study of its problems and to work out their solutions.

THE OLD WAY

Hull House, the famous settlement house in the Chicago stockyards district, influences twelve thousand people weekly; it reaches people of all ages, from babies taken care of in the day nursery to helpless old folks. Educational work includes manual training for adults. This picture shows a woman in the carpet-weaving room operating an old-fashioned spinning wheel

Activities of social service. In social work the needy families are assisted to a self-supporting basis; the blind, crippled, feeble-minded, and insane are cared for; orphans and homeless elderly people are provided with homes and care; wayward boys and girls are looked after, advised, and guided; playgrounds, recreation centers, and clubs for boys and girls are organized; also there is Americanization service, public-health nursing, etc. Community centers are made possible. Attractive quarters are acquired in the heart of a poor, miserable district, and there, through wise, capable, and understanding service, the whole community is brightened and taught

better ways of living. There are classes and clubs of various sorts for the young people and classes for the mothers, where they are taught how to take better care of their children and to conduct their homes more efficiently. Americanization classes are held. Sometimes

VISITING NURSE AT WORK

there are day nurseries, where working mothers may leave their small children. There is usually a library and a gymnasium. The Young Men's Christian Association and the Young Women's Christian Association come under the head of special work; so does charity organization work, such as associated charities, Red Cross work, policewoman duty, etc.

Some things to consider. Should you like to help in such work? You would have the immeasurable joy that comes from giving help to those who most need it, from hav-

ing a definite and direct part in making the world a happier place. You would be dealing with human beings, and if you like people your work should be keenly interesting. But unless you have a strong vitality, optimism, and a sense of humor; unless you have courage and are of an even temperament; unless you *like people*, you had better not plan to enter the work. The hours are long, and frequently the work must be done in unpleasant surroundings. The salaries are comparatively low.

The training necessary. The executive secretary for the Charity Organization Society of New York City, says he never hears the question Is it necessary to have training to do social work? without thinking of the man who was asked if he could play the violin and replied that he didn't know, — he had never tried! The secretary adds that training for social work is quite as necessary as training to play a violin. Not many years ago it was "popular" to do social work. Young society girls and matrons went into it because it was "being done by all the smart people." Today the best schools offering courses in social work require *as a basis for entrance* a college education or its equivalent. Some universities allow students in their senior year to take the first year of a two-year course. While a college education is desirable, the lack of it will not keep a person out of social work. Special training is ordinarily required, and two years' experience is advised before taking up any special line. Today the trained social worker insists on as thorough a diagnosis of each social problem that comes up as a doctor does of a new medical case. In spite of the fact that there are between forty thousand and fifty thousand social workers in the United States, there is an insistent demand for thoroughly trained capable workers who are willing to give their lives to this interesting and necessary work.

The Salary. Salaries are not large. They are still somewhat lower than those paid to teachers. They are being raised, however, as the people are coming to realize more and more that, entirely aside from the sentimental view,

THIS FAMILY WAS HELPED

The New York Association for Improving the Condition of the Poor has four aims: (1) restoring families to self-support; (2) building health; (3) opening up opportunities for the children; (4) caring for the aged. (Courtesy of the Association for Improving the Condition of the Poor)

it pays to have their community in good moral, social, and physical health. At present the salaries range from about $1000 to $8000. Those social workers employed by large industrial concerns are somewhat better paid than others.

Some social-service organizations are supported by public funds, and some by private contributions. The government, in its work with war veterans, in its hospitals and institutions, carries on a wide social service. Many of the large city churches have social-service organizations of their own, and a number of them offer scholarships in the various training schools.

Schools offering training. There are over forty schools in the United States and Canada offering organized curricula in social work. Among them are the following:

Bryn Mawr College
Western Reserve University
School of Social Work, Richmond, Virginia
Boston School of Social Work, 18 Somerset Street, Boston, Massachusetts
Smith College Training School for Social Work, Northampton, Massachusetts
New York School of Social Work, East Twenty-second Street, New York City
Universities of Ohio, Toronto, Chicago, Minnesota, and Pittsburgh

Some of the many positions filled from these schools are those of probation officer, parole officer, director of case work, community welfare worker, community social worker, medical social worker, playground director, research worker, lecturer, investigator, office helper, and fund collector.

A problem. Oftentimes, where there is no organized social work, worthy cases are overlooked. There is a family in town, named Rhuls, which needs clothing, fuel, food, and money for rent. The father is ill, and there are five children. What steps should be taken by a social-service organization? Think it out as carefully as though you were the social worker responsible for this case.

Find out about the various kinds of social work in your own community. How are they supported? Do school-teachers do any social work? Does the church?

In large community-chest funds the overhead expenses (those of raising and collecting the money and of administering it) amount on the average to less than 8 per cent. Some poorly informed persons object to this; they complain about too much overhead. Is it worth the 8 per cent in Cleveland, Ohio, to have 92 per cent of five million dollars collected and carefully spent?

If you are interested, why not offer your services in some capacity once a week? It will give you inside knowledge of the work and help you to decide whether or not you want to go into it definitely.

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CHAPTER XXXI

CIVIL SERVICE

The country's largest employer. The government is the largest employer in the country.

It grants patents on inventions.

It constructs all buildings, docks, roads, bridges, irrigation works, and other public works that are for national use.

It builds ships and airplanes.

It makes clothing and supplies for its soldiers and sailors.

It makes all moneys and does all its own printing.

It distributes mail and other packages.

It looks after its public lands.

It administers the affairs of the Indian tribes.

It educates Alaskan children.

It issues insurance.

It maintains hospitals for its war veterans.

In addition to its large tasks of lawmaking and law enforcing, or national defense, and managing national finances, the government is charged with promoting the health and welfare of its people, their home interests, their agricultural, mining, manufacturing, shipping, fishing, and transportation interests. To do this it must investigate, control, and banish diseases that attack persons, plants, and animals; it must inspect live stock, foods, and drugs; it must study progress in education, labor, and commerce, and advise the people concerning the best methods; it must prevent men from using unfair business in banking, manufacturing, trade, and transportation.[1]

[1] Catherine Filene, Careers for Women. Used by permission of the publishers, Houghton Mifflin Company.

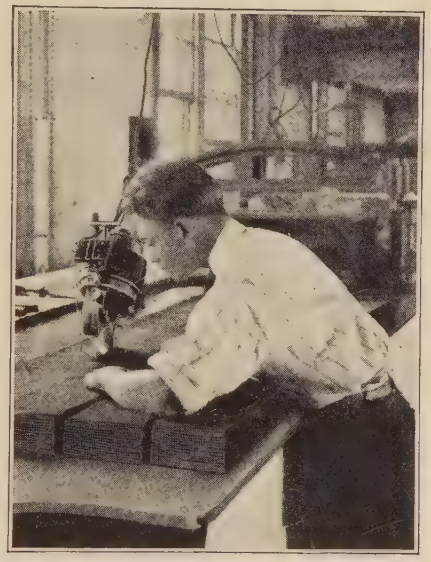
The government has a big job on its hands. Think of the vast number of people needed to carry on all this work! Laborers are needed, and engineers, accountants, printers, lighthouse keepers, doctors, firemen, chemists, architects, stenographers, mechanics, experts in child welfare, textiles, and home economics, teachers, librarians, janitors, forest rangers, immigration inspectors, an army of clerks, thousands of people in almost every kind of work.

THE BEACH PATROL

This signal is used to tell a ship in distress that help is at hand or as a warning to a vessel of dangerous shoals or dangerous approach to shore. (Courtesy of the United States Coast Guard)

United States Civil Service Commission. How should you like to be one of the employment managers for such a business? If you were, it would be your job to secure the right woman or man for each of the multitude of positions. In the United States this employment board is known as the United States Civil Service Commission. Its headquarters are in Washington, D. C. States and cities have similar boards located at the various state capitols and at the city halls. When these civil-service commissions were

first created, the old spoils system was practically discarded. It, you remember, was started in 1829 during Andrew Jackson's presidency, when all important and semi-important government employees were ousted and friends of the administration were put in their places. Today there are some four hundred and forty thousand positions in the United States open only to those able to pass competitive examinations. The Pendleton Act, passed in 1883 and creating the Civil Service Commission, emphasizes three things: (1) only those who can pass a competitive examination can be appointed to those government positions which are under the civil service; (2) Federal employees are prohibited from being active in politics; (3) department heads are forbidden to remove employees for political reasons.



CUTTING ONE HUNDRED PIECES OF CLOTH FOR FLAGS

Courtesy of Quartermaster Corps, United States Army

Chances for appointment. Not everybody passes these examinations. Out of the average of two hundred thousand persons taking them every year, some sixty thousand are appointed. Half of these are in the postal service. Find out how many government employees there are in the postal system of your town.

The appointments to positions at Washington are apportioned among the states according to their population. For instance, New York has one tenth of the population of the country and so is entitled to one tenth of the government employees in Washington. However, applicants

COAST-GUARD CUTTER ON INTERNATIONAL ICE PATROL IN THE NORTH ATLANTIC

Courtesy of the United States Coast Guard

from the Western states usually have the better chance for appointment, as their quotas are seldom filled.

Information about examinations. The United States Civil Service Commission sends out bulletins describing the positions that are vacant from time to time. These bulletins state the salary, subject, time, and place of examination and give important instructions to applicants. They are usually posted in public libraries and in

post offices. They will be sent upon a request to the Civil Service Commission at Washington, D. C. Recently this commission has been announcing its examinations from radio stations throughout the country.

Is there any such bulletin at your post office? What is it like? If one or two of you can get an old bulletin at the public library, bring it to class.

In a number of the better positions the applicant is rated on training, experience, and recommendations rather than on competitive examination. The higher administrative positions are usually filled by promotion from the lower offices. Remember that useful information may be had by writing to the Civil Service Commission of the city or state or by a request to the United States Civil Service Commission at Washington, D. C. If you live in Canada write to the one in Ottawa or to that of the province in which you live.

It pays to make a good grade. If you rank near the top after the examinations have been rated, you stand a much better chance of being appointed — and of being appointed for life! These positions are filled under the name of "probational appointments," because the appointee must give satisfactory work for six months before her or his appointment becomes permanent. Other things being equal, soldiers and sailors honorably discharged and widows of soldiers and sailors, are usually given preference in government appointments.

More honor now attached to government positions. Because of the old spoils system little honor was attached to a government position, and only recently has any special attention been paid to training for government service. In England, where for a great many years public service has been looked on as an honorable career, there are a number of excellent schools for training persons who

desire government positions. Cambridge and Oxford graduates take civil-service examinations for positions at home, in India, or in other British colonies. This is true also in France. In Germany almost all government officials have to go through a special course of training.

GOVERNMENT AGENTS STOCKING STREAM WITH YOUNG FISH

In recent years a number of schools in the United States have offered courses designed for training men and women for government positions. Many city colleges offer such courses. Commercial schools may prepare persons for some of the clerical positions. A number of schools offer courses aiming to prepare young men for foreign service. The Georgetown School of Foreign Service in Washington, D. C., has trained a large number of men for consular service and positions in foreign trade. As a rule the courses in those correspondence schools

which profess to prepare for civil service in a short time are worthless: they usually consist of long lists of past examination questions. Reliable information can be had only from the Civil Service Commission itself or from its

TOPOGRAPHER AND INSTRUMENT LASHED TO PEAK

Another field of service for Uncle Sam. (Courtesy of the United States Geological Survey)

representatives, and this is without cost. The United States Civil Service Commission states: "This Commission is in no way responsible for statements in advertisements of schools."

All examinations open to women. In November, 1919, women were reëmancipated when all government civil-service examinations were thrown open to them. Today

there are several women United States District Attorneys, and there are a number of women lawyers in the patent office, the land office, and in different bureaus. There are women in the foreign service and in many important executive positions throughout the country. Do you suppose a woman will ever sit as chief justice of the

HYDRAULIC ENGINEER GAUGING STREAM CURRENT

Many civil-service jobs are outdoor ones. (Courtesy of the United States Geological Survey)

United States Supreme Court, serve as a cabinet officer, or occupy the White House as president of the nation?

The pleasant things about government service. The government job obtained under civil service is nearly always a permanent one. Generous vacations with pay are granted annually — thirty days in Washington and at least two weeks everywhere else. The work in many cases is more or less routine, and there is no special hurry about getting it done. The hours are not long, eight hours

a day in most places, seven in Washington. Because the working day closes there at four-thirty, many government employees take advantage of the numerous schools and colleges in and near Washington for further study, and so prepare themselves for more important jobs. Some of these schools arrange their class hours to suit the civil-service people. Government pensions are arranged for by keeping back a small percentage of the employees' salary. The highest pension paid, however, is $720 a year. Then there is the pleasure that comes from the thought of working directly for one's country.

Some disadvantages. Although promotions are made in government service, they are not made often. In a business where there are hundreds of thousands of employees, promotions are likely to be made slowly. There is much routine, a seemingly endless amount of "red tape." In so vast a business many minute records must be kept, and kept exactly. Anyone who is impatient of routine, who does not want to be exact to the last detail, had better turn his mind to other employment. There is small opportunity for original ideas or much expression of personality. In so tremendous a concern a person may easily lose his individuality. The pay except for the lesser positions, such as janitor work etc., is low compared with similar work in other organizations.

Talk with some employee of the Federal service about his job, the examination he had to take, whether or not he would advise you to secure a similar position, etc.

Salaries. Salaries of clerks and mechanics, of those in unskilled or semi-skilled labor, are as a rule somewhat higher than those paid for the same kind of service by private employers. Other salaries are comparatively low, ranging from $1000 to $5000, in a few rare cases to $10,000. Experts, scientists, executives, and professional

men and women have long been underpaid in government work. However, a study of this condition was made in 1922, and various bonuses have been added to salaries, making them more adequate incomes.

To a man or woman content to live on a modest salary in a permanent job, who prefers short hours with generous vacations and comparatively easy work to advancement and hard work with shorter playtime, a government job is one greatly to be desired.

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CHAPTER XXXII

HOME-MAKING

When the doctor said that Mrs. Allen needed a good rest, the family cheerfully bundled her off for two weeks to a quiet resort. They declared that they could manage splendidly without her and really thought that they could.

The day she left, Jane, aged sixteen, prepared the dinner. She felt quite tired when everything was on the table, yet the dinner could scarcely be called a success. The potatoes were scorched and the steak was underdone. After father, John, aged eleven, and little Mary, aged seven, sat down to the table, Jane discovered that there was not a slice of bread in the house!

"Hum!" said father, thoughtfully, "our purchasing agent left along with our cook, I see."

That night little Mary had a sore throat which needed attention. The family was upset, because along with the cook and purchasing agent had gone the family nurse. John needed some assistance with some arithmetic problems, but his obliging home-teacher was away!

Next morning the bed linen had to be changed, the laundry checked and sent out, plans made for lunch and dinner, and food purchased for the day. The gasman came to fix the stove. The family flew about at unaccustomed tasks. The regular housekeeper and business manager was away.

Two days later Easter vacation began. Jane needed a new hat. She looked through the hat shops all one after-

noon and finally selected one. She wished ardently for her mother's deft touch in adding a bow or giving the brim a twitch that would make the hat more becoming. Her mother had planned to freshen and retrim Mary's last year's hat, but had been unable to get to it. By the time Jane had finished making the beds, leaving the bathroom

© Publishers' Photo

AN ATTRACTIVE LIVING ROOM

No matter how attractive a home may be in the beginning, unless a homemaker is there to keep it so the friendly charm is soon gone

immaculate, and straightening the house, she thought she understood why her mother had had little time to play milliner. While Jane took over the general housekeeping, father and John undertook to clear the breakfast table and wash the dishes. Even little Mary attempted to help, trotting about with a dust cloth, gravely polishing table legs and chair rungs as she had seen her mother do.

As Jane hurried about preparing lunch she felt conscious-stricken because she had urged her mother to finish her pink Easter dress before she left. How had she

managed to be a dressmaker in addition to everything else? Surely she was an unusual person.

One evening John was very restless. "I don't know what to do!" he complained. "Wish mother were here to suggest something. She always had something up her sleeve. What's the matter with this room, anyway? It doesn't look right."

"I guess it's because we don't have any fresh flowers around," Jane answered in a small voice. "I was just thinking about it. The ferns need watering, too. The furniture looks stiff and askew, and the magazines and things are all mussed up."

"Our interior decorator and home-maker is away," said father, quietly, laying aside his evening paper. "And I guess we, as well as you, son, feel rather at a loss without our social adviser."

"Goodness me, daddy," said Mary, with round eyes. "you call mother more funny names!"

"Well, I guess she is all of them, dear," answered Mr. Allen. "It seems to me your mother had good reason to need a two weeks' rest."

"I never dreamed how often mother had to pick up things I left lying around," said Jane, thoughtfully. "She must have had to clean that bathroom bowl and pick up the towels a dozen times a day."

"Well, dishwashing and cleaning the kitchen is no cinch," declared John.

"When mother does come back," father said, leaning forward earnestly, "each one of us must do some definite things to make this home-making business a bit easier for her."

The children nodded gravely.

Make some lists. Make a list of the different jobs this mother filled. Suggest (1) two definite things Jane could do each day to make the work easier for her mother;

(2) two things John could do; (3) two things little Mary could do; (4) two definite things Mr. Allen could do.

Now list the different jobs your own mother does. Name three definite daily tasks you yourself do or could do to make life easier and happier for her.

Home-making not limited to girls. The business of home-making should not be limited to girls. In an ideal home husband and children have definite responsibilities as well as mother. In the University of Illinois every man in the coaching school takes a course in food selection during his college career.

"Oh, some folks grin when they hear we fellows are taking a course in home ec.," said one of the Illinois football stars, "but two or three years ago they thought it was just as funny when a girl took up law or medicine. I think this course is a fine thing. Why, look at the number of business men who get their lunches downtown every day. Shouldn't they know how to choose the right foods? If a fellow doesn't learn in high school or college, where is he going to learn?

"Besides," he went on, "there are thousands of us fellows who will never marry. What about us? We shall probably have to choose food for three meals a day, three hundred and sixty-five days every year. This idea that the girls are the only ones who should study home economics is all twisted!"

Do you agree with this opinion?

Home-making covers a wide field. Is the following an overstatement of fact? "Household management is both a practical art and a trained profession. . . . It is as much a business enterprise as is the running of a store or office, or as is the operation of a factory."[1] Home-making

[1] C. W. Taber, The Business of the Household. J. B. Lippincott Company, publishers.

is a highly specialized industry. As in a factory, raw material is brought in and converted into finished products. Many operators must be supervised and directed. The labor problem must be considered and dealt with. Capital must be invested and turned to the best possible advantage. Overhead costs, running expenses, and depreciation constantly demand intelligent attention.

A MOTHER'S INTELLIGENT CARE IS MISSING HERE

And with all these, the perplexing questions of education, religion, and society demand serious thought and study.

A vitally important profession. While the home-maker does not render service to so large a number of people as do the doctor, lawyer, teacher, etc., her time of service to the few under her care extends over a much longer period of time. No other profession is of more vital importance to the nation.

The United States government, recognizing the underlying influence of home training on its people, has seen fit to provide for the intelligent training of home-makers, and in 1917 passed the Smith-Hughes Act. This act

provides for Federal grants to states for aiding four phases of education: agriculture, commerce, home economics, and industry. Home economics is defined as "that education which has for its controlling purpose the preparation of girls and women for useful employment as house daughters and home-makers in the occupations and

© Publishers' Photo

ONE OF THE MOST IMPORTANT TASKS OF A HOME-MAKER IS THE PLEASANT ONE OF MAKING CHILDHOOD HAPPY

management of the home." It is not included under industrial education, because that implies preparation for a definite wage-earning.

Home-makers for larger groups. Home-makers and house managers are needed for groups larger than the family. That person who makes a pleasant home for persons who otherwise would be homeless gives invaluable service. Such persons are found in boarding houses, hotels, inns, children's homes, homes for the aged and

infirm, etc. There are house mothers in college and private-school dormitories and cottages, in fraternity houses, and in a great many men's and women's clubs. These people earn a comfortable living. They have under them varying numbers of assistants and helpers, for the places of which they have charge are run very much like private homes on a large scale.

Many people believe that if some of these efficient home managers filled the city official positions, our cities and towns would have cleaner streets, better-kept parks, more sanitary supplies of milk and drinking water; that the laws would be more strictly enforced; that there would be less graft, and altogether that city affairs would be more wisely managed than they are today.

Education and training. A home-maker should have a good general education — four years of high school at least; college if possible. People used to say, "Oh, anyone can cook and scrub and keep house!" Anyone can who aims no higher than the life of a drudge. An intelligent home-maker needs not only a good general education but special training as well. Estimates show that 80 per cent of women marry and that 90 per cent of housewives do their own work. No girl in high school or college can make a mistake by taking courses in cooking and sewing, in first aid, in art and music appreciation, in chemistry (for the knowledge and use of foods), in history, and many courses in English. One of the most needed studies is psychology. Probably the most important job a mother has is training the children in the home — morally and spiritually as well as mentally. Can you suggest any other studies that might be helpful to the future home-maker?

Some advantages and disadvantages. With the large number of occupations open to women today, they can

afford to stop and consider before accepting the position of house manager for one man. Let us see what are some of the advantages in this occupation. The home-maker has the joy of working directly for loved ones. There is little danger of her profession's becoming crowded. Her

ELECTRICAL APPLIANCES AND MODERN PLUMBING IN A COUNTRY HOME

A woman as mistress of a home may consider herself as manager of one of her country's most important institutions. She should see that her home is efficiently managed and that it is as well equipped as is possible

place is safe and sure. She is independent in that she works under no superior. She has an opportunity to work out her own ideas in home decoration, in cooking, etc., and has the joy of creation. There is wide variety in her work.

Of course much of this work is hard. However, a growing use of the many electrical appliances, such as dishwashers, washing machines, mangles, sweepers, etc.,

lightens the labor in many homes. The same things must be done over and over; and unless one is able to think ahead and work efficiently, such tasks as washing dishes three times a day, cooking three meals a day seven days in each week, etc., are likely to grow monotonous. Then, too, a family is likely to accept the many services of a housewife as a matter of course and do little to lighten her tasks. Ask your mother to name other advantages and disadvantages.

Other qualifications. To succeed as a home-maker, one must have an intelligent understanding of her job and a keen appreciation of its value. She should be able to find joy in serving others. To prevent her constant round of duties from making her life dull and monotonous, she should by all means have an intelligent interest in outside things that are worth while.

Salary. Every housewife, no matter how small the family income, should have a definite budget which includes with other items her own personal allowance.

Suggestions. Think of three homes into which you enjoy going. Why are those homes attractive to you? Are the causes of charm the same in the different homes?

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OTHER OCCUPATIONS IN WHICH YOU MAY BE INTERESTED

In the foregoing pages you have become acquainted with a number of important fields of work. However, no attempt has been made to cover the entire field of man's activity. The thousands of activities in which people engage would, if adequately discussed, fill many volumes. Some important fields of work which have not been treated here are suggested by the following:

Actor
Artist
Author
Baker
Beauty culturist
Candy-maker
Interior decorator
Iron and steel worker
Machinist
Minister
Photographer
Publisher
Radio engineer
Television specialist

Perhaps you can think of other occupations in which you would like to engage. For the study of any field of work the outline on page 376 and the books listed on pages 379–380 will be found very helpful.

PART THREE. GENERAL GUIDANCE

CHAPTER XXXIII

SOME FUNDAMENTAL QUALIFICATIONS

As you grow older you want to become a successful man or woman, and you do not want to be successful in business affairs alone. You want your life to be full; you desire to render service and to be happy. You want such adjectives as *trustworthy, dependable, cultured, gracious, courteous,* to be applied to you. In order to succeed in your business relations or in the matter of living, there are some fundamental qualifications necessary.

Good health. One of the most important of these qualifications is good health. Without it you are hampered from the start; with it, there are few obstacles you cannot overcome. Of course there are splendid outstanding examples of men and women who by sheer determination, courage, and faith have surmounted the obstacle of continued poor health, but they are exceptions. Many people by persistently striving for health have overcome their early weakness. Everyone knows about Theodore Roosevelt. From the pictures you have seen of him you would not guess that he was a delicate, sickly boy, about whom his parents were greatly worried; the pictures show a strong, robust, virile man. Few of you stop to think of the battle with weakness that he waged for many years. You often forget that Roosevelt frequently refrained from doing things that his brave spirit longed to do, or did things that were distasteful to him. But he was wise enough to know that his life would not be a success unless he had a strong body; and, moreover, he knew

well that his body would not be strong unless he exercised real control over himself.

Another American loved by all boys and girls was Eugene Field, author of "Wynken, Blynken, and Nod," "Little Boy Blue," and many other charming poems. Here was another man who came into the world with a

THE HIGH JUMP

Several fundamental qualities are required for a feat of this kind. Can you name some of them?

weak constitution. More than that: he was not careful of his diet. He liked pies and cakes, and after eating a generous supply of them, he would go to bed and lie there reading. Coupled with his stomach trouble, which followed as a result of his improper habits of eating, was eyestrain, caused by reading in the wrong position. The boys and girls of this country were shocked and saddened when they learned that Eugene Field, the children's poet, had died at the age of forty-four. Do you suppose that

if careful attention had been given to his health he might have lived and worked much longer?

An American poet loved by boys and girls was William Cullen Bryant. Grave doubts for his life were held by his family when he was a boy. He began to write when he was about thirteen, and soon became fond of the outdoors. His familiarity with nature and his gradually acquired habits of spending much time out of doors began to restore him to a degree of health. He became master of his life habits, ate wisely, took regular, moderate exercise, and lived a sane life. The result was that he not only lived to produce poems of which this country is proud, but he lived to be a very old man, retaining his powers of body and mind till past eighty years.

Good health required in business. It is generally agreed among men who employ people that good health is one of the first requisites. Many men in high positions refuse to employ a young man or woman who is not in good health. One superintendent of schools in a large city states specifically that the man he employs must be firm of flesh and in vigorous health. He realizes that no matter how eager a young person may be to make good, he cannot do it unless he has a large reserve of health and vigor which will enable him to meet emergencies as they come.

Regular exercise. To attain and keep good physical condition, you must make your exercise regular and be persistent in following the rules of good health. When people in the grandstands cheer an unusual play on the football or baseball field, few of them think of the weeks of steady practice and training behind that play, the denial of delectable sweets, the rigid enforcement of regular habits. Perhaps if they did appreciate all this they would cheer all the more and look on the whole team with added respect.

Outdoor sports for girls. Outdoor sports for girls are becoming more and more popular and widespread. Pictures of girls' rifle matches, soccer games, tennis matches, swimming races, and other vigorous activities are crowding off the rotogravure Sunday supplements the pictures of athletic activities of boys and men. Women tennis players are doing notable things, and young girls have the courage and stamina to swim the English Channel. And have you noticed the large proportion of the pictures in newspapers and magazines that show people engaged in health-giving sports?

Some simple health rules. But if you are to be successful through health, what are some of the things you must do?

1. *Eat simple foods.* Include in these many fresh vegetables and few pastries. Take plenty of time to eat. Usually the man or woman who is too busy to take time to eat finds time later to stay away from work on account of illness and to read the financial statements submitted by physicians and druggists.

2. *Get plenty of sleep.* Have a good bed. Never sleep less than eight hours. Nine are better.

3. *Walk erect.* Stand tall. Do not slouch. Look at the man or woman above fifty who is straight and has a fine carriage. Then look at the one who droops. Which would you rather be?

4. *Practice deep breathing.* Practice deep breathing while you are walking to and from school. Begin by inhaling through the nose for every six steps; then exhale through the mouth while taking the next six steps. Increase the number of steps as time goes on, but do not attempt to make all the improvement at once. When inhaling, breathe deeply against the diaphragm.

5. *Relax at regular intervals.* Lie down on your back, relax every muscle, and, if possible, sleep for a few min-

utes. Then you are ready for work again. After the noon meal is a good time for this; some prefer to relax just before meals.

6. *Watch for overstrain.* Boys and girls of your age can stand a tremendous amount of physical exertion, but excess of exercise is likely to be dangerous. Know when

REST ROOM

In a large manufacturing plant every department employing girls has a rest room. Twice each day for ten minutes girls stop work and relax

you have gone far enough and then insist on resting. Long-distance runs are especially bad for boys and girls.

7. *Select some favorite athletic game and make it a hobby.* Tennis, baseball, handball, hockey, quoits, cricket, and many others may be chosen, and all are seasonal. Each person should be a devotee of two or three games, played at different seasons of the year.

Then for the times of the year when games are not possible, — and, in fact, at all times, — everyone should

have a repertory of simple bending and stretching exercises that will keep all the muscles of the body (especially the abdominal muscles) in a healthy condition. This last remark should be underlined. It is said that during the war more people died in this country of ills resulting from constipation than were killed in the war. A set of exercises indulged in every day, preferably on arising in the morning, will do much to keep you in excellent condition. Your radio will give you a set of exercises each morning if you tune in. Walter Camp's famous daily dozen can be purchased in pamphlet form for ten cents. Any gymnasium instructor will be glad to give you a set of physical exercises. The hard thing is not to learn the exercises but to follow the instructions regularly and vigorously.

8. *Watch your mental attitude.* Have you ever noticed how people are attracted to a young person who has a friendly smile and who never seems to have a "grouch"? The person the corners of whose mouth turn up instead of down from habit has made a start toward success. The person who takes an optimistic attitude toward things has an advantage over the pessimist.

9. *See that you are examined occasionally.* The good chauffeur examines his automobile very frequently and keeps it in good repair. He knows that if even a small part is defective the entire machine may stop and refuse to go even when the rest of it is in good condition. Many a boy or girl has been afflicted with rheumatism, heart trouble, nervousness, or other troubles simply because of defective teeth. An examination of the teeth every six months would not have cost a great deal, and yet it would have saved much pain and inefficiency. Often the same troubles are caused by defective tonsils or by adenoids. The boy or girl who desires to be 100 per cent successful must see that the entire body is functioning perfectly.

The only way this can be done is by an occasional examination by the dentist and the physician. It is very important also that you be examined only by those who are real experts in their professions.

Honesty a second fundamental qualification. A second fundamental qualification is honesty. Robert Louis Stevenson puts first in his formula for a successful life, "To be honest." Do you know of cases parallel to the two following? John Williams, when he was known as "little Johnny," was allowed to take any loose change he found about the house, and later he did not hesitate to take money from his mother's pocketbook without permission. He came to pride himself on being able to pick up an apple, a piece of candy, or a cooky under any grocer's nose without being detected. One day he took a schoolmate's new skates, and thought himself very clever when he was not discovered.

Amy Smith boasted she had cheated on every arithmetic examination from fourth grade up and had never got below 80 on her report. She will not tell an untruth outright, but she regards half-truths as perfectly proper. If the blame for some faulty thing she has done falls on someone else, Amy is likely to keep silent and slip from the room as soon as she can do so unnoticed.

If you were building up a business or if you wanted to maintain the integrity of one already established, should you want either John or Amy among your employees?

You may do things that are not strictly honest and "get by." All of us know of men of little honesty who have grown rich. Do you suppose in their quieter moments they are "friends with themselves"? In his formula for a happy life Mr. Stevenson goes on to say: "To keep a few friends but these without capitulation — above all, on the same grim condition, to keep friends

with himself — here is a task for all that a man has of fortitude and delicacy." It is difficult at times to do the unswervingly honest thing, but how glad and how proud you will be later that you did it; and people will come to trust and to respect you instinctively. The adage "Honesty is the best policy" is out of date: honesty is the only policy if your life is to be a successful one.

Dependability. Mr. Bruce was driving home. Four more blocks and he would reach its restful shelter. He had had a strenuous day's work, and he knew that a warm welcome and a delicious hot dinner awaited him. Suddenly his face changed. He applied the brakes, and his car slid to a stop. That letter to Bush & Buhl! Had he cautioned his secretary to be sure to mail it? A great deal depended on its reaching Philadelphia early on Tuesday. It was the rule of the office, of course, that the secretary mail all letters as she left the office at five o'clock. That letter must get into the six-o'clock mail. Now, this story has one of two endings:

Either, "Mr. Bruce sighed heavily, turned his car about, and retraced his way through the evening traffic. He reached home an hour and a half later to find his wife anxious, his children hungry, and his dinner half spoiled."

Or, "Then Mr. Bruce's brow cleared. It was the rule of the office that the secretary mail all letters. That settled it. The letter would get away in the six-o'clock mail. As his car again moved forward a smile came into his eyes and rested there." The ending rests entirely on the dependability of his secretary.

Should you have caused the sigh or the relieved smile? Will an employer say about you: "Blake is all right. When you tell him to do a thing, it is as good as done. We want to keep that boy!" Or: "I recommend Mary Barton for the promotion. There is a girl you can depend

on. She sees that things are done, that they are done right, and that they are done on time."

Now here at school, if you say you will be at the gymnasium door at eight o'clock, be there. If an English theme is due at ten o'clock, Tuesday, hand in your theme at that time. If you agree to keep the plants in your room watered for two weeks, do it. If you told your father that you would stop on your way home and get his shoes at the shoe shop, get them. Dependability in small things leads to greater opportunities. It is a quality well worth cultivating.

Graciousness. A dean in one of the large high schools for boys tells the story of the same request from two boys.[1] It was just before the Thanksgiving holidays when one of the boys came in saying he wanted to get off Tuesday noon instead of waiting until Wednesday noon, when the holiday recess began. He said he wanted to get away in order to see a favorite uncle. When the dean hesitated the boy became impudent and arrogant. He declared it would be a "rotten shame" if he were not permitted to go; that he should not be "getting a square deal." The dean did what you would have done, in the face of such a threatening, abusive manner: he refused his request. The boy, flushed and angry, went out banging the door behind him. The next morning another boy came into the office, smiling and frank.

"I'm afraid, sir, we boys are a great nuisance to you, aren't we?" he began when the dean turned to him.

"Not always," replied the dean. "Anything I can do for you?"

"Well, sir, it is pretty nervy of me to ask this, I know, but I don't want to come back to school until Tuesday

[1] T. A. Clark, The High School Boy. By permission of The Macmillan Company, publishers.

morning, instead of Monday. I haven't much of an excuse. You see there is a party Monday night, and there's a girl at home I know and — and I'd like a lot to take her to the party." He looked up, blushing.

The dean remembered the time he had felt the way this chap did. "That will be all right, Hughes," he said; "give her my love."

Fair? Probably not; but all through life each of those boys is likely to get the same answer to every one of his requests unless he changes his manners. A sunny cheerfulness helps greatly. The hedgehog does not have many friends.

The longer we live, the more important a part do manners seem to play in the lives of those about us. Of course the person behind the manners is far more important, but the great majority of people are honest-hearted, generous-minded, and of good intention. They do awkward, blunt things not because they want to, but because they have not learned how to do otherwise. These school days are your learning days. The things you learn now and the habits you form here in school are pretty likely to remain with you all through your life. Here, through various clubs and activities, you should get enough social training to enable you to meet people in a pleasing way; you should acquire some habits of being considerate in little things that will mark you as courteous and well-bred.

For instance, it is a small thing in itself for a boy to remove his hat on entering an elevator when there are women present, to take it as a matter of course that he is not to sit as long as a woman or an older man is standing, to refrain from interrupting a conversation, to be thoughtful of the comfort and happiness of others; but failure to do these things will indicate that he is crude and careless.

Courtesy in the business world. The importance of courtesy is recognized in the business world. Mr. George Whelan, president of a company operating six hundred separate stores, declares: "Courtesy is the cheapest commodity in the world and yet the most far-reaching in its effect. Incidentally, courtesy is the basis of good retail service." So thoroughly is his company convinced of the truth of this that they have spent fifty thousand dollars in attempting to convince their employees of the same thing.

A THOUGHTFUL ACT

Courtesy is an important factor in occupational success

In building up a career — whether it be that of a retail merchant, of a great lawyer, or of a shoe-repair man — this one qualification of courtesy is a prime factor.

Cleanliness. In selecting a number of traits you desire to make a part of your character, you must not overlook the habit of cleanliness. We think of finger nails, of collars and handkerchiefs, of hair, and of shoes. Unconsciously you feel a little more respect for yourself when you are clean and well dressed, and other people feel more respect for you. A wise business woman strives unceasingly to attain a well-groomed look. She never wears to the office half-soiled fluffy clothes which,

even when cleaned, are suitable only for afternoon or evening. Immaculate cleanliness in hair, skin, teeth, hands, and as far as possible in clothes is her aim. It is needless to suggest that lack of this important quality is as great a handicap for a man as for a woman.

The matter of voices. One day two Englishmen were sitting in one of our city parks. Some American girls came down the walk. They were well dressed, their faces were bright and animated, they carried themselves well. "It is a pleasure to watch them, isn't it?" inquired one of the men as the girls passed. "To watch, yes!" replied the other. "To hear, no! The American girl is the best-dressed and the handsomest girl I know, but her voice is the worst. It is nasal or harsh or loud or squeaking. She may be a joy to look at; but let her speak, and the charm is broken."

Girls, keep your voices sweet. You can. Copy these lines from Shakespeare and think about them once in a while.

Her voice was ever soft,
Gentle, and low, — an excellent thing in woman.

Boys, did you ever notice the difference in men's voices? Some are deep and quiet, some are clear and distinct, some are harsh or gruff, some are whining. What sort of voice do you want to cultivate? It is yours to choose. This suggests one reason why it would be well for every boy and girl to serve some time in a telephone office. Someone has wisely said the voice with a smile wins. Bring to class a list of telephone "Don'ts."

The ability to speak in public. The president of a general advertising company says new conditions demand that when necessary the young person of today be able to present his case in public. He declares that the person who can get up before an audience and present his case

in a clear, logical, and forceful manner stands a better chance to make good than the timid youth. Glance over a list of occupations. In which ones is this likely to be true?

It will probably be encouraging to some of you to learn that a prominent lecturer says that as a schoolboy he was

A CLASS IN TABLE ETIQUETTE

Learning to be mannerly at table in a government school for Indians. (Courtesy of the United States Department of Indian Affairs)

so shy about appearing before an audience that when he stood up before a class to read, his paper or book shook so that he was obliged to lay it on a desk in order to see the words. He says that his efforts at those times to keep his voice steady were really heroic.

A woman noted for her poise and charm declares that the times she was most grateful for skirts were those times when it was necessary for her to stand before her classes in high school, for then she needed them to con-

ceal her foolishly shaking knees! You can train yourself to become a good speaker even though you are extremely shy.

Good manners. Are you ever troubled about the proper way to introduce people? what you should say to your partner after a dance? which fork you should use at the table? when it is permissible to eat small vegetables with a spoon? what sort of paper to use in answering an invitation? The answers to all these questions and many others you will find in books listed at the end of this chapter. Some people do not have the opportunity to acquire social graces by contact with well-trained people. There are two elements which lie behind all social customs: common sense and thoughtfulness of others. When you are in doubt about the proper thing to do or say, put yourself in the other person's place and ask yourself, "What should I like to have him do for me in a similar situation?" Sound sense and the answer to this question will help you out of your difficulty.

To make them your own. Success depends to a great degree upon character and intelligent effort. The several fundamental qualifications which we have been considering you can make elements of your own character by using intelligent effort.

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CHAPTER XXXIV

A PLAN FOR SELF-STUDY

Get acquainted with yourself. Before selecting a career you should be very sure you have the qualifications desirable in that career. For instance, you should not be a farmer unless you are reasonably sure you shall like the outdoor work and are willing to work long hours. You should not plan to be a lawyer unless you have keen intelligence, a delight in solving human problems, and a fighting spirit that holds you till the fight is over. You should not attempt to be a salesman unless you like people and can meet them pleasantly and win their confidence. One reassuring fact which we sometimes overlook is that there is some type of work suitable for each of us. Not all can be famous preachers or great musicians; but in an age which offers many opportunities in a wide variety of fields the person who discovers he is not naturally fitted for one thing that appeals to him can easily discover a field that meets his capacity and can engage his enthusiasm.

The problem is, What are your capacities or aptitudes? In studying yourself you should take into consideration among other things the matters discussed in the following paragraphs.

Health. Everyone desires perfect health. If he has it he need not take health into consideration except to endeavor to keep it. If his health is not perfect and cannot be made so, he must face the situation and consider this in selecting his career. For instance, a boy with any kind

of heart weakness should not attempt to be a professional baseball player (at least not a home-run hitter), nor should he attempt to be a structural iron worker; yet there are many positions of a different type which he can fill well, such as that of accountant, insurance salesman, etc. Many a man who had to slow up on account of heart trouble has lived to be seventy or eighty years old. A person with weak lungs should not work in dust; a person of a nervous disposition will do well not to teach school or be a Y.M.C.A. or Y.W.C.A. secretary. Study your health; match it with that of those most successful in different professions and see how it measures up.

Mental capacity. Just as some persons are taller or shorter or stronger or swifter than others, so some think more quickly and arrive at conclusions sooner. Some come into an entirely new situation and immediately adjust themselves to it; others make adjustments more slowly. Some can take such subjects as Latin and mathematics and make very high grades; others find them difficult and are much more successful in such subjects as history, civics, and geography, or they may be exceptionally successful in mechanical drawing, dressmaking, or other manual work. Some psychologists think that our intelligence is of different degrees; others, that it is of different kinds. Some people have what is known as abstract intelligence, or the ability to deal with ideas; others have concrete intelligence, or the ability to deal with things; still others may not be strong in either of these, but may have keen social intelligence, or the ability to deal with people and get along well with them.

Study your own abilities. Before selecting a life work you should study your abilities and try to see in which of these three general fields they lie. Many a young man has wanted to be a lawyer whose real talents lay in a field

requiring less abstract but more social capacity. He was admirably suited to be a salesman, but made a failure as a lawyer. Others have found that they were unsuccessful as teachers, but were exceptionally successful as carpenters and contractors. Still others have dropped into the manual field when they had capacities fitting them to do the more abstract type of work, such as law, ministry, teaching, or scientific work. Usually the positions requiring the more abstract intelligence give a broader field for service, but this should not have the effect of drawing into them persons who are not fitted for them. We should learn that success in one field is just as real and satisfying as success in any other field. The important thing is to find the right field and then make a real success in it.

Industry. Studies of many people show that health and mental capacity are not the only elements that make for success. There are others of equal if not greater importance. Many a brilliant person with bounding health has made a failure for lack of these. One of these is industry. Someone has said that genius is 99 per cent hard work. Many persons not considered brilliant make real successes of their lives because they have the grit to start a thing and stay with it. How about you? Do you like to work? Have you the ability to stick to a job till it is done as well as you can do it? Are you a finisher or just a commencer? Are your lessons as well learned as those of the majority of your class, not so well learned, or better learned? When you are asked to do a piece of work at home, at school, or elsewhere, do you do it energetically and thoroughly, or half-heartedly? Industry and energy will enable you to outstrip many a person who may be able to learn or do a thing more quickly.

Attitude. A noted psychologist said recently that purpose is more important than all other elements combined

when it comes to learning. A person's attitude toward what he does may easily determine his success or failure in it. A person may have the ability to do a thing, and the strength, and may force himself to do it, but may hate it. The reason for this is likely to be that he has entered it with little thought beforehand of its value to him in the big plan he has for himself. If he had thought this through and had seen the necessity for it, he could easily have taken a congenial and friendly attitude which would have made him enjoy it. If after careful thought and discussion with teacher and friend he finds that he cannot take the proper attitude and tie this up with his general purpose, then it would probably be wise to change the course.

In an ordinary group of persons doing the same thing about 50 per cent are average — that is, they are neither very good or very poor; about 25 per cent are better than the average; and another 25 per cent are poorer. Rank yourself with those in your class in a number of items. When you compare yourself with the remainder of the class are you average, better than average, or poorer?

Low, 25 Per Cent	Average, 50 Per Cent	High, 25 Per Cent

Make a form similar to the one above and write the names of three acquaintances on the lines in each section. In the one headed "Low, 25 per cent" write the names of three who appear to have little industry; in the "Average" section write the names of three that appear to have about the average amount of industry; in the column marked "High" write names of three who are unusually industrious and energetic. In which group do you belong?

Rank yourself. Using similar forms, select three acquaintances for each group and rank them, as well as

MECHANICAL-DRAWING ROOM IN A LARGE MANUFACTURING PLANT WHERE MANUAL SKILL IS NECESSARY

yourself, under the following heads: abstract intelligence, mechanical intelligence, social intelligence; attitude toward school and study and work in general.

After making these rankings, if you find it interesting you might rank yourself in the following characteristics:

Leadership: Do people follow your leadership willingly?

Appearance: Are you neat? Is your linen always clean? Do you move about as if you knew where you were going?

Interest in subjects: How do you rank in interest in four different school subjects? (You may select any four required subjects.)

Interest in hobbies or extracurricular activities: How do you rank yourself in any four in which you have at least a slight interest?

Coöperation (ability to work agreeably and efficiently with others): Study yourself in the classroom, on the playground, and at home, and compare yourself with those who coöperate exceptionally well, those who coöperate very poorly, and those who coöperate fairly well.

MATHEMATICAL ABILITY IS NECESSARY HERE

One who would advance far in the study of physics must be able to work with abstract symbols

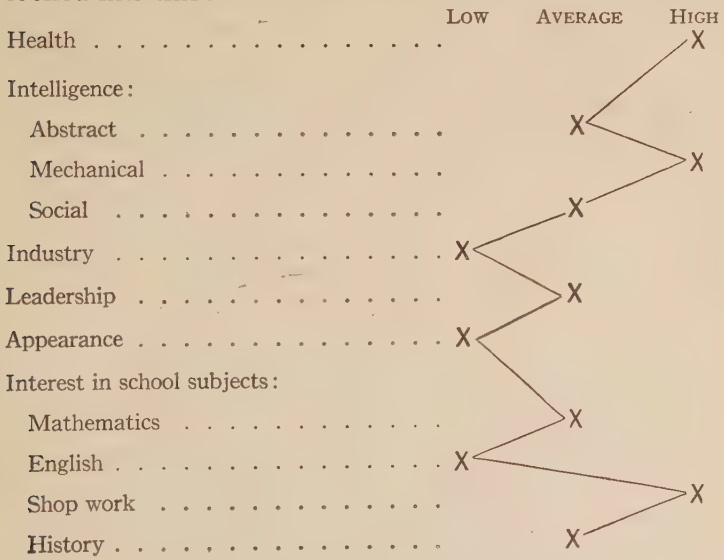
Moral attitude (including integrity, trustworthiness, honesty, and responsibility): The teacher will discuss with the class at some length the meaning and applications of these.

Language ability (ability to use the English language fluently and correctly): This implies that you must be able to use many more words than the average person of your age and education, and know their various shades of meaning if you are to rank among the highest.

Manual dexterity (ability to use the hands successfully in doing things): Some persons can tie a knot very swiftly and neatly; others are slow and awkward. Where do you rank yourself? Some can make remarkably clever things with a pocketknife; others cannot sharpen a lead pencil successfully and are in danger of cutting themselves if they attempt to do much more. Some can use the typewriter or play a musical instrument skillfully; others would never be successful in these things. Can you saw a board off square or make a neat mechanical drawing? Think of a number of other activities that require skill of hand and finger.

Should you like to see how these different rankings look when you have them assembled? If so, you might put them on a "profile chart" like the one below.

A certain boy found that his profile for a few qualities looked like this:



You will notice that he had excellent health and good intelligence but did not like to work. He was average in leadership. Do you suppose his bad appearance, his poor English, and his laziness may have prevented him from being a good leader?

Be honest and thorough with yourself. Draw your profile in all the characteristics mentioned and see what help you can get from it. If this is to help you, you must be perfectly honest and frank with yourself. You want to be a real success. To have success you must know your interests and abilities in various lines. Test yourself in every way possible. In the English class do your level best; be wide-awake; see how successful you can be in English, and in what parts of the English work. Do you like the work in the school shop? What parts of it? Have you had a trial in typewriting? office practice? sewing? millinery? Have you been a member of a salesmanship club or have you tried selling anything? Have you tried making a garden or raising flowers for sale? What work have you done on your school paper? Did you succeed? Did you like it? Think over many other experiences you have had and decide whether they may help you to choose your life work.

CHAPTER XXXV

CHOOSE WITH CARE

Jack-of-all-trades. Jack Williams waited uneasily in the office of the Stocton Chair Factory. There were four other employees with him. Finally the president of the company entered. His face was grave as he acknowledged the greeting of the five men.

"Sorry, men," he said, "but the production of the plant has fallen off until I am obliged to let some of the employees go. You fellows have been here only a short time, and have shown no particular skill in the work. I hope you may find a better job very soon. Good morning."

The other four men filed silently out. Jack remained. He felt he *had* to have work. This was the fifth time in two years he had been turned out of a job.

"Is there anything at all I can do to keep on?" he asked, with a lump in his throat. "It is no joke to have to beg for work." The president looked at him keenly: "The foreman tells me you are slow and show no special aptitude in his department. What kind of work are you fitted for? At what have you been employed during the last two years?"

Jack's story was soon told: a Jack-of-all-trades — carpentry, farm work, janitor service, anything at which he could make a living. Why didn't he remain in school and get something to offer for a job? Because he had a teacher he did not like. He did not realize that in leaving school he was making a mistake which he was to pay for all his life; so he dropped out and took the first job offered,

that of running errands for a shoe store. Finding this led nowhere, he tried another job, then another, and so began drifting. Now, at the age of thirty-three, he was out of a job with not a cent ahead to tide him over if he fell ill or failed to find a new position promptly.

© E. Galloway

A TYPICAL JACK-OF-ALL-TRADES

At the age of fifty-four he is glad to have a job handling trunks and guiding an electric truck in a big train shed

Misfits. Did you know that well over 50 per cent of the labor turnover in industrial and commercial employment occurs during the first six months of work? The individual employee is not the only one who suffers from this; it means a great economic loss to any business employing many people. Why is this? To combat a large labor turnover, firms all over the country have engaged men known as employment managers. It is the business of these men to select each employee for that part of the work for which he is best fitted, in which he is most likely to do well and be content to remain. Men and women get into jobs, find they do not like them, see no future ahead, so seek something, *anything*, different. If a man has a family, or a woman has someone dependent on her, each finds he must stick to the job in order to get a living,

even though the work proves very disagreeable. There are too many discontented workers, far too many misfits.

Joe Rice is head of a department in a general dry-goods store. He makes a fair living, but his greatest joy is in a 12 by 23 plot of ground behind his house. He is

MEN'S DEPARTMENT IN AN EMPLOYMENT BUREAU

Misfits looking for a different kind of job

convinced that if he had a small truck garden near the city he should be healthier, wealthier, and far happier.

Mary Revan is in the telephone exchange. She is grateful for a job that gives her a living for her mother and herself, but her whole heart is bent on designing costumes. She is attending night school, attempting to make up the high-school work she scorned years ago, and hopes some day to be able to take a special course in designing. In the winter of 1925–1926 forty thousand persons, mostly adults like Mary Revan, were attending night school in

New York City alone. Raymond Stevens, a high-school teacher, envies every lawyer he meets. Bob Cresham, a lawyer, feels that all his years of study and preparation were wasted. He longs to be a doctor.

From a number of surveys made to determine the number it has been estimated that from one half to three fourths of the people gainfully employed in the United States are in the wrong occupations. There are twenty thousand different kinds of jobs in the world. For which one are you best suited? In which are you most likely to be successful and happy? How are you to find your job?

Get acquainted with many vocations. What do you do when you buy a hat? Instead of attempting to try on all the thousand and more hats in the shop, you look them all over carefully, then select four or five which you judge will be the most suitable and the most becoming. Of those chosen, you find on further examination that the price of one is too high. It is eliminated. Another proves too large. A third does not harmonize with your coat or coloring.

Look over the vocational world. Become *vocationally intelligent*. Select three or four jobs that especially appeal to you. Study them. Learn all you can about each of them: the nature of the work, the service it renders, the training it requires, its advantages and disadvantages, whether or not it is overcrowded, if it has a future. In the occupation you select *you are going to spend six or eight hours five or six days a week for forty or fifty years*. Be careful about choosing that job. Learn all you can about the different occupations by reading, questioning, observing. Consult men and women in the work. Go to the librarian. She will help you to find good material about it. Ask your parents. They have your best interest at heart, and no one will give you more sincere advice. Consult your own likes and dislikes closely. Then take stock of yourself.

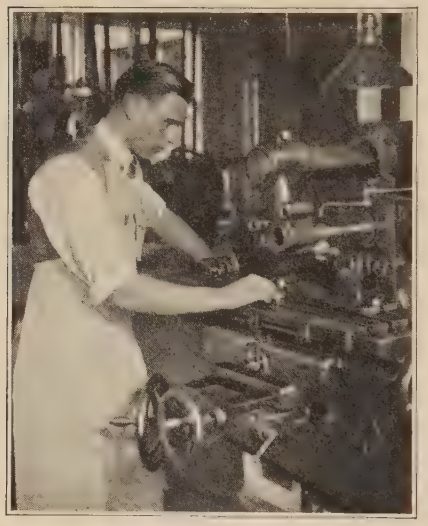
Take stock of yourself. Are you, with your intelligence, characteristics, and capability of growth, likely to succeed in such an occupation? If you are going to select an occupation intelligently you must study yourself and *know* how far you can go. Do not underestimate your ability. Unless you establish yourself in a vocation which calls for the exercise of all your powers, you are more

ARE YOU INTERESTED IN AGRICULTURE?

In this school boys are able to try themselves out along this line. (Courtesy of the United States Department of Indian Affairs)

likely to decrease in ability then to grow and develop. A man so placed is likely to be discontented and restless. It is just as serious a mistake to attempt to succeed in a vocation that is definitely beyond the reach of your powers. This can cause only continual discouragement. A girl or boy should take stock of working materials, health, temperament, adaptability, likes and dislikes, and attempt to develop along the line of greatest strength and to make the most of the stuff which God has given him to work with. This matter of self-knowledge cannot be overestimated.

Because his parents urge it, a boy mechanically inclined may go through all the years of training, ten beyond high school, to be a doctor, only to find that he is not temperamentally fitted to be happy in his work or to be successful in it.



AN APPRENTICE AT WORK

If you are interested in learning more about machinery, it might be well to get a job with a company maintaining a school for further training of its employees

Never was there such a wide range of opportunities as there is for the girl and boy of today. Among the twenty thousand different occupations, there is one which requires just the sort of qualities, training, and aptitudes that you possess. Find your place. The time spent in making yourself sure beyond a reasonable doubt may save you time, disappointment, and heartache later. In all your life there is no decision you will have to make that is more important than this of finding your particular job.

Write it down. Mr. William Rosengarten, in his book *Choosing your Life Work*, makes a practical suggestion. He says when once you have carefully and *prayerfully* made your choice of an occupation, write your decision down on paper, stating all your reasons for having chosen this one thing. Then, later, when you become doubtful and uncertain, look at your paper.

In choosing a career or occupation you want one which, first of all, is honorable, and one which serves humanity. That sounds rather big; but you want an occupation that helps the community in which you live, — possibly a much wider community, — one that is worth while, one that you can be proud of claiming as your own. Then you want one which has a future, which will pay a good living wage, and in which you can be happy.

If after careful study you are unable to decide on any one or two or three occupations, and if you have a good brain, — the ability to make good grades, — stay with the academic course in high school. That lays a good groundwork for anything.

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You will find very helpful suggestions in some of the excellent references listed under General Bibliography on pages 379–380.

CHAPTER XXXVI

GETTING A JOB

Jane Cress knows Miss Miller, a young woman who is secretary to the president of a silk factory. Miss Miller has a car of her own and dresses well. Jane decided that she too would be a secretary; so in high school she chose the commercial course and began the study of shorthand and typewriting. Shorthand she has come to dislike, and she finds herself dreading to go to the typewriting room. Instead she lingers about the home-economics room, where the girls are making hats. She has always enjoyed making over her own hats, and even Miss Miller declares she has a decided genius for making any hat more becoming.

John Lewis, who wants to become an architect, is studying manual training and mechanical drawing. However, he looked up the college-entrance requirements for architectural courses, and along with these two subjects he is taking the regular academic course because it is required for college or university entrance.

There is no doubt that Peggy Dover, who delights in all sorts of cooking lessons, who enjoys sewing, and calls the study of house management the most interesting course in school, will enjoy home work.

Carol Lee, who has taken every course offered in English, who is literary editor of the school paper and is clever with her pen, plans to be a writer. Before entering high school she thought she wanted to become a nurse.

Robert Berth was confident he wanted to be a lawyer; but after trying himself out in the school debating team,

he found he could not learn to like it. He does thoroughly enjoy all mathematics, is bookkeeper for the school bank under the commercial teacher's supervision, and now he plans to become an accountant.

High school gives opportunity to try yourself out. You see your high school, through its try-out courses and its

A WOOD-WORKING SHOP IN A SECONDARY SCHOOL

High schools offer you many opportunities to try yourself out. (Courtesy of the Public School Practical Arts Department, East Orange, N. J.)

various school organizations, may save you disappointment and disillusion later by giving you an opportunity now to test your ability and define your likes and dislikes. Two men who made a survey of labor turnover found, in their study of the records of hundreds of thousands of employees, that 52 per cent left their jobs at the end of three months.[1] You do not want to be among that

[1] P. F. Brissenden and Emil Frankel, Labor Turnover in Industry. The Macmillan Company, New York.

52 per cent to take any kind of job you can get and spend three months of your life in it only to find the work is entirely uncongenial to you. You can determine that right here.

Suppose your school offers no try-out courses for the occupations in which you are most interested. What

HAVE YOU ARTISTIC ABILITY?

In a junior or a senior high school you may have an opportunity to develop it. (Courtesy of the Public School Practical Arts Department, East Orange, N. J.)

then? Can you suggest something for out-of-school employment? Select, each of you, two occupations in which you are interested. Then find out in what different ways experience can be obtained in these occupations in your own community, or near it. First consider carefully the opportunities in your high-school courses and in its various clubs and organizations; then question men and women in these special lines who are likely to know about local opportunities.

Applying for a Job

If you must get work and are under the legal age or have not finished the required number of years in school, it will be necessary for you to secure working papers. Different states have different requirements for securing

WHENEVER POSSIBLE APPLY FOR A JOB IN PERSON

these employment permits. Find out from your school principal what the requirements are for your own state.

The personal interview. Suppose you are manager of a chair factory and need a foreman for the painting department. The morning mail brings you ten letters of application for the position. While you are considering three of the more promising ones a man comes to the office to apply for the position. You like his face and general appearance. He has not had as long or as varied experience as two of the writers of the selected applications,

nor does his education measure up to that of any of the three. He dropped out at the end of high school; but from your conversation with him you are convinced that he knows paint. From his quiet, forceful manner you judge he can handle men.

Are you going to look farther? What advantages does this personal applicant have over those applying by letter? Except in rare cases, it is always better to apply for a position in person.

Things to accomplish in an interview. The purpose of the employer in granting you an interview is to see if you are the person best fitted for the position in question. There may be a dozen or more applicants. There are three things you want to accomplish in the interview:

1. To get his favorable interest;
2. To convince him you can do the job;
3. To create a desire to secure your services.

Personal appearance. Your personal appearance must be considered. Someone has said dress may not make a man, but it does make an impression. A prominent business man was asked what special criticism he would make of the young men who came to him for employment. "Their English is poor, and their laundry bills are too small," was his reply.

Mr. Buckner, a lawyer, needed a new stenographer. At his request an employment agency sent him two applicants, both reputed to be unusually efficient. They came to the office. One of the girls used some perfume which was strongly evident even after she had left the room. Her finger nails were pointed and highly polished, but her neck was not quite clean. Her teeth were slightly yellow, the heels of her satin shoes were run over. Her silk blouse had three distinct spots across the front. The other girl was immaculately clean. There was no rouge

on her face. Her shoes and hair were well kept. Are you at all doubtful which of the two applicants secured the position?

Questions likely to be asked. Let us think of some of the questions the employer is likely to ask in an interview. If you have thought about them beforehand, you will be able to answer them more readily and confidently. He will want to know your age, your education, what experience you have had, why you desire the position, why you want to leave your present job or why you left your last job, what you want to become eventually, and so on. Will he be interested in your leisure-time activities? your hobby? If you were employing a person should you be interested in his outside activities while in school? the clubs to which he belonged, the offices he held, etc.?

Do not linger. When the employer signifies the interview is over, do not linger. Do not show that you are disappointed or urge your services. Thank him for his courtesy in granting the interview and go out pleasantly. You may be asked to fill out an application blank after you have talked with the employer. If you are, fill it out in more detail than you would if you had not had the personal interview.

Applying by letter. If you must apply by letter, there are probably four things to accomplish:

1. To make your application stand out from all the other applications;
2. To create an interest in yourself;
3. To convince the employer that you are qualified for the job;
4. To create a desire for your services.

In writing your application do not use social stationery, the folded sheet, nor hotel or club paper. Get regular

business stationery, $8\frac{1}{2}$ by 11 bond paper. Typewrite your letter if possible. Be sure you know the correct form of a business letter before beginning to write. It is wise to ask for a personal interview rather than for the job itself. To secure a favorable reply to your request, you must tell enough about yourself to convince the employer of your ability and to create a desire to investigate you farther. In a letter of this kind you might give your telephone address. Be specific. Do not say "I have a good education." Tell what your education consists of.

Should you consider this a good way to begin your letter? "... Having seen your advertisement in the Friday morning *Herald*, I take this occasion to apply for the position." Why? Why not? Criticize the following:

I am applying for the position of sales manager for your retail department. I can say that I am an A. No. 1, salesman and I know the retail business from A to Z, and then backwards. You won't make any mistake if you hire me for you will soon see your sales record rise to a dizzy height. I am not telling my present boss I am applying for he won't want to lose me.

. . . I know I can sell for you, and here is how I know. Three years ago I came here with Barlow and Barlow as a clerk. In six months I was head clerk of my department. Within two years I was sales manager for my department, and the sales this last year hold the record, etc.

Other methods of securing a job. It is sometimes wise to apply for a position when applications are unsolicited. Many good firms do not advertise for men or women: they expect employees to seek them. This method has its advantages: it enables you to select your employer. If you must apply by letter, your letter stands a good chance of getting attention because it will have less competition than it would have if written in answer to an advertisement.

Then there is the method of securing a position through an advertisement. Trade papers are a good medium for such an advertisement, as an employer usually reads trade papers relating to his business. Get your advertisement near the head of the list if possible. Criticize the following advertisements:

Competent head bookkeeper wants position where ability is appreciated. Address B. F. D., 241 North Ave.

Bookkeeper: 28, 4 years' experience; at present full charge books local wholesale house; quick, accurate work; references. Box 215, Herald.

Why is it easier to secure a job if you are already employed? Bring to class a personal advertisement which you consider good; one that you consider poor. These may be taken from your local paper.

Salary. The time to talk about salary is after you feel that the employer wants your services. If you are asked to state the salary you desire, you might say or write: "I am at present receiving twenty-five dollars each week. However, I am willing to leave the matter for you to decide after we have had our interview." If you are not willing to do this, decide what you are willing to do before you are faced with the question.

The matter of references. It is better, as a rule, to give the names of two or three strong references than a long list of names. Always ask permission before using anyone's name as a reference. Since many employers prefer conversation over the telephone to a letter, it is well to give the telephone address of each reference.

Before you change jobs. If you are already employed, be very sure there is no chance of promotion before you attempt to change jobs. Andrew Carnegie reminds us that "the men who have succeeded are the men who have

chosen one line and stuck to it." Distant fields may look greener than those at close range. So study the job you have, carefully, to see what can be done to secure promotion before you try something else.

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Further helpful suggestions will be found in books listed in General Bibliography, pp. 379–380.

CHAPTER XXXVII

WHEN YOU ARE NOT WORKING

The first of January brought a number of promotions in the shops and offices of the Atlas Steel Company. Charles Young was one of those not promoted. As he had been with the company five years and had expected promotion, he was greatly disappointed. When he asked the office manager why he had not been favorably considered, the reply he received came as a shock. "What time did you go to bed last night?" Charles was somewhat upset by this question, but managed to ask if it were the company's affair how he spent his time away from the office. "In so far as how you spend your spare time affects your work here, it is distinctly the company's affair," said the manager, quietly.

Charles did not press his case any farther. He was very thoughtful during the remainder of the day, and in the evening he canceled an engagement to go out with some friends, and did some careful calculating. His figures were only estimates, but he considered them approximately correct. During those five years with the company he found he had averaged five evenings a week away from home. Some of these evenings were spent at shows, mostly in moving-picture theaters. One evening each week he had spent with a card club. Other evenings he had spent in entertainment, ranging from automobile joy-riding to dancing or just loafing. Saturday afternoons and Sundays he had spent at ball games and in other diversions that might happen to suggest themselves to him.

During these five years he had earned seventy-five hundred dollars. At this time he had twenty-five dollars in the bank and owed something over a hundred and fifty dollars. For the five and a half working days of the week he was very frugal. His luncheon never cost him over fifty cents, and he never smoked while he was working. It

SOME LARGE CORPORATIONS PROVIDE ENTERTAINMENT FOR THEIR EMPLOYEES DURING THE NOON HOUR

seemed that his money had all disappeared after working hours. This, then, was his problem: how to use this leisure time more wisely. He would have to change his playtime program if he were to keep his job. He must do a much better job if he were to expect promotion.

The next day he wrote a letter resigning from the card club, and that evening he wandered into the Y. M. C. A. gymnasium. For a while he stood watching a group of young men playing volley ball. He envied the splendid physique of one fellow whose back was toward him. When the young man turned, Charles recognized Earl Wilson, a chap three years younger than himself, who

the day before had been promoted over his head. Earl had been with the Atlas Company only two years. How had he done it?

Charles enrolled for gymnasium work that night chiefly that he might get acquainted with young Wilson and find out how he did it. The following is taken from an entry in his diary two weeks later.

1. Wilson's education same as mine: 4 years high school, 2 years college.
2. Awfully interested in his work at plant; takes a reading course at library and learns a lot,

Reads a lot. I'm going to begin, so we can talk about things.

3. Has budget and savings account.
4. Goes to church.
5. Crazy about real music, not jazz. Has a radio he built himself.
6. In wonderful physical condition chiefly because of lots of exercise. Boy Scout master for three years. Great at volley ball, but I believe with some practice I can beat him at tennis.

A year later when Charles got his first promotion he sought his chum, Earl Wilson. "Got it!" he announced briefly. "And say, J. R. [the junior partner and vice president of the Atlas Steel Company] asked if we wouldn't take him on in tennis some afternoon! He's been watching us play. When he does play, watch me wallop him!"

Exercise had given Charles abounding health, wise reading had enabled him to suggest some substantial improvements in his department, and an outside hobby had brought him friends and helpful acquaintances. For the first time in his life he had a savings account.

It matters a great deal how you spend your leisure time.

Is there truth in this? What do you think about the following statement? "On the playground one acquires

alertness, concentration, and resourcefulness; those who are timid learn self-confidence; those who are overconfident acquire self-restraint. A person develops a sense of fair play and good sportsmanship in defeat and, what is more important sometimes, similar qualities in victory."

Read it again. Is it all true? Does it always happen?

A CLOSE RACE

On the playground a boy or girl develops a sense of fair play and good sportsmanship in defeat and, what is more important sometimes, in victory

More and more leisure time. Science, inventions, regulated working hours, and a more equal distribution of work are going to give us all more and more leisure time. Where men formerly worked twelve hours, they now work eight. In a few factories only six hours are required of the workmen. What are the people going to do with their leisure time? They cannot go to the movies every night. You don't want to feel bored and listless with several hours of leisure ahead of you, and nothing interesting to do. Here is a man by the name of Clark Thompson. He has a six-hour job in an automobile

factory in Detroit. He is through work at three o'clock. It takes him half an hour to get home. He changes his clothes (he might as well, since he has plenty of time), and is free, with nothing special to do, by four o'clock. Now what? No use reading the paper — he went through that in the morning; besides it is in the late

A HIGH-SCHOOL ORCHESTRA

Music will always mean much to a person who has been a member of such an organization. (Courtesy of the John Adams High School, Cleveland, Ohio)

fall, so there is no baseball news, and he knows nothing about football. He never saw a game of tennis, so the sport page is dry reading. Two hours until dinner time; and there will be two hours the next day and two hours the day following, Saturday afternoon off, and all day Sunday! Is this question of leisure time one worth thinking about?

Mr. R. G. Jones, former president of the National Education Association, once stated the three aims of education (notice that two of the three have to do with the

question of leisure time): "We want a program of education that will lay the foundation of an inclination to do a day's work capably, to employ leisure time profitably, and to enjoy life fully."

Mrs. Norman Smith has four children; but now that she is forty-five they are all grown up, and so require none of her attention. She has practically no household duties, as her husband is financially well able to employ several maids. Unless she has learned to employ her leisure time profitably and to enjoy her life fully she is going to be a discontented woman.

How the school can help out. By reading good books in school, such as *David Copperfield*, *Treasure Island*, *Julius Cæsar*, and others, you learn to appreciate and enjoy good literature. If you do not learn to like reading before you leave high school, you will never like it. By studying about different composers and learning to know their music and songs, you can learn to appreciate and enjoy good music. This will broaden your life and add a constant pleasure to your days. With radios and phonographs in many homes, good music is far more accessible today than ever before. While in school you may learn to know and appreciate nearly all the important sports and be able to take part in some of them. You will acquire an understanding of certain fundamental principles that will be helpful to you in all your dealings. You can learn how to meet people with ease and confidence and attain the poise necessary in every walk of life.

In high school you can get on the basket-ball team, join the Boy or Girl Scouts, or get into the dramatic club. You might join a bird club or a glee club. A great many boys are learning camp cooking, and a surprising number can make hot biscuits that are delicious. You might add interest and information to your life by get-

ting on the force of the traffic squad at school; or, if you are a girl, by entering the domestic-arts department and making your new hat. It will probably be more becoming and cost less than half as much as the one you might buy. You might try for the school-newspaper staff. There are all sorts of interesting things to do in high school.

A JUNIOR-HIGH-SCHOOL LIBRARY

Reading is a habit which should be formed by every person who desires to use his leisure time profitably and enjoyably. (Courtesy of the John Adams High School, Cleveland, Ohio)

John Weeks has written a book telling the possibilities of one acre of ground. On one acre he keeps twenty-five hundred chickens, and has a splendid garden and many kinds of fruit trees. Why not join the garden club and learn about such things?

If you do not already have a special leisure-time activity, experiment until you find one that appeals to you and that is worth while. Then ride this hobby and see what an interesting trip it will give you.

Hobbies of interesting people. It may interest you to know the hobbies of some of our interesting people. Thomas Jefferson was an excellent amateur violinist and practiced daily even when president. Coleridge was a chemist as well as a poet. Joseph Jefferson, the famous actor, painted in his leisure hours. A school superintendent makes exquisite ship models. A well-known civil engineer raises choice plants. A professor of Greek in Chicago, whose hobby was botany, lost his voice, and because of his interest in botany was appointed curator of the botanical museum. His hobby now is the study of Hebrew. Wallace Nutting, whose pictures adorn many homes, was at one time a minister. He delighted in photographing natural beauty spots. Fame and fortune have come to him through this delightful hobby.

If you had twenty-four hours to spend exactly as you pleased and no questions would be asked, what would you do? Think it out.

Budget your time. It will be an interesting experiment to budget your time for four days, allowing so many hours for sleep, so many for eating, so many for school, and so on. In this way you will be able to find out how many hours you have been idling away. The number will probably astonish you. Why not cultivate an interesting, valuable hobby to fill most of that time?

Value of hobby increases. The outside interests you have now will be a source of much pleasure to you when you grow older.

If I had my life to live over again, I should definitely cultivate some talent or hobby as a preparation for the pleasant and wholesome occupation of leisure. I do not know whether it would be music, pictures, or some form of sport, but it would serve the important purpose of furnishing needed relief and change from the occupations that fill one's working hours. However interest-

ing one's daily work may be, it requires the relief of sensible relaxation. A man should be trained to play as hard as he works, and training to this end should be begun in youth. — ARMAND J. GERSON

Do not look upon English and art and history and geography and shop work and home economics and gymnasium work and many other subjects as merely required courses that must be covered. Look at them all as fields in which you may find infinite pleasure and as steps toward the attainment of real culture.

Lyman Reed is an unhappy man. He had to retire from active business because of his health, but he has a comfortable income, an attractive home, and much leisure time. That last item is the cause of his unhappiness. He gets no pleasure out of people, out of nature, or out of any sort of sport. He does not like to read. He has not learned to employ his leisure time profitably and to enjoy life fully.

Are you often bored or do you more frequently feel with Robert Louis Stevenson

> The world is so full of a number of things,
> I'm sure we should all be as happy as kings.

Tell about an interesting hobby. Find out the hobbies of three different persons you know. Be prepared to talk for two minutes on the most interesting outside activity you know. Talk so entertainingly that someone else will want to make that hobby his own.

OUTLINE FOR THE STUDY OF AN OCCUPATION[1]

1. Importance to society.
2. What things are actually done by a person who is in this calling? (1) Make a list of them; (2) outline a typical day's work.
3. What are the main advantages of the occupation?
   - *a.* Service to humanity?
   - *b.* Chance to learn?
   - *c.* Demand for workers?
   - *d.* Steady work?
   - *e.* Growing importance of the vocation?
   - *f.* Interesting work?
   - *g.* Promotions?
   - *h.* Friends and associates?
   - *i.* Hours?
   - *j.* Vacations?
   - *k.* Good living?
   - *l.* Healthful work?
   - *m.* Moral conditions?
   - *n.* Other points.
4. What are its disadvantages and problems (compare 3 above)?
5. What educational or other preparation is necessary or desirable?
6. What are the other requirements for entering and succeeding in the occupation?
7. What income may be expected at first and later?
8. What effect has the occupation on the social, civic, physical, recreational, and moral life of the worker?

[1] Frederick J. Allen, A Guide to the Study of Occupations. Harvard University Press, Cambridge, Massachusetts. Used by permission.

WHERE FILMS PICTURING VARIOUS OCCUPATIONS MAY BE FOUND

Motion pictures will be found very helpful in connection with this course.

The Bureau of Commercial Economics, Washington, D.C., has the largest supply of films that may be had free of charge.

In many of the states a list of films available for school use may be had by writing to the state department of education. Films may also be obtained from various museums.

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